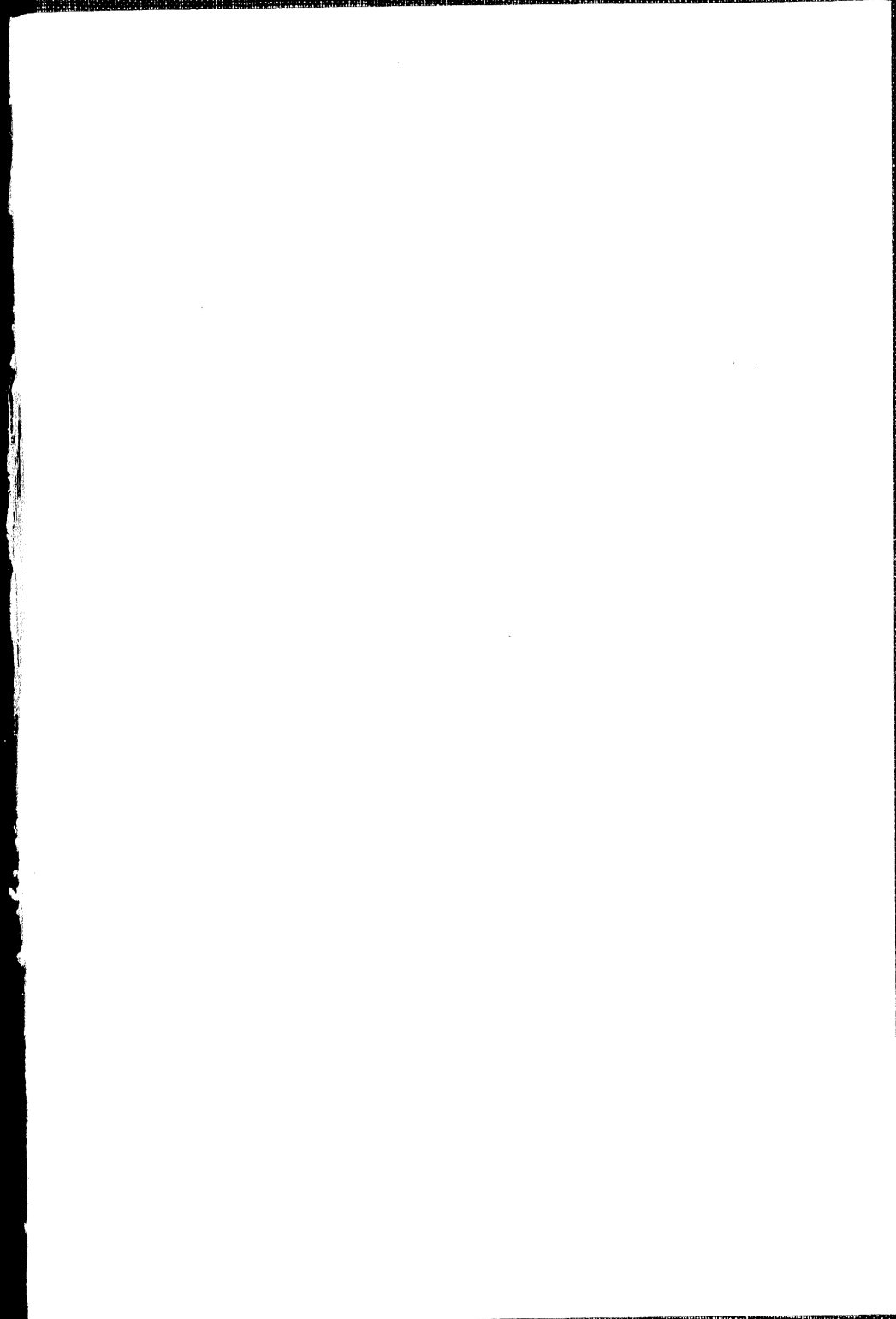


DU
620.3
-A24
no.1





REV. SERENO EDWARDS BISHOP
(Taken in 1902)

The Advertiser Historical Series
No. 1

Reminiscences of Old Hawaii

by

Sereno Edwards Bishop

With a Brief Biography

By Lorrin A. Thurston

Hawaiian Gazette Co., Ltd.
Honolulu, Hawaii, 1916

WV

6203

424

no. 1



Preface and a Brief Biography of Sereno Edwards Bishop

THERE has recently been a growing demand, both on the part of permanent residents of and visitors to Hawaii, for specific information concerning the history of Hawaii, more particularly of the period of transition from the ancient feudal system when the King and Chiefs had supreme and absolute power of life and death and the common people had no rights of person or property, to the era when constitutional guaranty of protection and the laws of civilization became established.

A comprehensive history of Hawaii has yet to be written. Its compilation will involve a vast amount of investigation and study, as the material is scattered through governmental and court records, private correspondence and journals, newspapers and magazine articles; while many matters, especially regarding the events leading up to annexation, rest in the personal and unwritten knowledge of leading participants.

Alexander's History, written for public school purposes, the best Hawaiian history now available, is necessarily condensed.

Other books bearing upon various phases of Hawaiian life, were issued in limited editions, and moreover, are mostly out of print.

Under these circumstances, it has been suggested to the writer that the best method of meeting the present public desire for information is to collect and publish the personal memoirs, reminiscences and writings of some of the older residents of Hawaii, who, through observation, were able to give first hand evidence of what they saw; or through contact with those living, were able to record the traditions and evidence of what had previously transpired.

Among the most lucid and almost photographic representations of the daily life and conditions existing in Hawaii during the interval between the arrival of the missionaries, in 1820, and the "Great Revival," in 1839, are the reminiscences of Rev. Sereno Edwards Bishop, written in 1901-2 and published in the Honolulu Friend, while he was editor of that journal, and in the Advertiser. These have been recently republished in the Sunday Advertiser.

A number of persons have urged that these papers be preserved in book form, in order to give greater future accessibility thereto.

The publication of books in Hawaii has not heretofore proved profitable from a commercial standpoint, as a rule, owing to the limited editions for which there is a demand; but the increased book-reading constituency in Hawaii appears to justify the venture; while the dissemination of knowledge of what actual conditions were, during "the good old days when the natives led the simple life, free from the ills of civilization and the greed of land grabbing missionaries" would seem to be a duty to the memory of those who devoted their lives to the Hawaiian people, and have now passed on. The suggestion of publication of Mr. Bishop's Reminiscences in book form has therefore been adopted.

A BRIEF BIOGRAPHY OF SERENO E. BISHOP.

In order that a knowledge of the man, his personality and environment, as well as of his writings may also be preserved, the following brief biography of Mr. Bishop has been compiled to accompany these Reminiscences.

The pioneer band of American missionaries to Hawaii, numbered seven men, who, with their wives, left Boston October 23, 1819, and arrived at Kailua, Hawaii, April 4, 1820, after a voyage around Cape Horn of 164 days.

The second company consisted of six married couples and two single persons. They sailed from New Haven, Conn., Nov. 19, 1822, and arrived at Honolulu, April 27, 1823, in 158 days.

Among the second company was Rev. Artemas Bishop, a native of Pompey, N. Y., where he was born Oct. 30, 1795. He graduated from Union College in 1819 and Princeton Theological Seminary in 1822. He was married in November, 1822, to Elizabeth Edwards, who was born at Marlborough, Mass., June 17, 1796. Mrs. Bishop had been a girlhood friend of Mrs. Lucy G. Thurston, who had preceded her to Hawaii as a missionary, some four years earlier.

The Bishops were first permanently stationed at Kailua, Hawaii, in 1824, being transferred to Ewa, Oahu, in 1836, and to Honolulu in 1855, where Mr. Bishop died, Dec. 18, 1872. Mrs. Bishop died at Kailua, Feb. 28, 1828, the first death in the mission band. She left two infant children, one being the subject of this sketch, Sereno Edwards Bishop, who was born at Kaawaloa, Hawaii, Feb. 7, 1827.

Mr. Bishop, Sr., subsequently married Delia Stone, who was a mem-

ber of the third company of missionaries, Dec. 1, 1828. She survived her husband, dying at Honolulu, April 13, 1875.

The life of a "Sandwich Island" Mission boy in the twenties and thirties was an abnormal one.

The mission house was usually in a thickly inhabited village, so that the missionary and his wife could be close to their work among the people; but such were the open indecencies of the surrounding heathen life that the mission children were kept cooped up where they could see and hear but little of what was going on outside.

While the life work of the parents was being conducted in the Hawaiian language, for the reason above given the children were not permitted to learn that language.

With hundreds of children all about them, they had no playmates except the children of other missionaries, most of whom were scattered over the Islands, meeting only a few times a year.

The life of the missionaries, as well as of their wives, was a strenuous one. There was a foreign language to learn; a written language to create; the scriptures and other books to translate; schools to be established and taught; medical attention to be given to a population numbering thousands; churches to be built and services to be conducted therein; visits to be made to outlying villages (there were only three missionaries on the entire west coast of Hawaii); admonition to be given to backsliders; the opposition of hostile foreign beach combers to be counteracted, and the amenities, decencies and industries of civilization to be taught by precept and example to a people virgin to both.

There did not seem to be hours enough in a day to accomplish what had to be done. The day began at four A. M. with no intermission until dark, while the evenings were lighted by kukui-nut torches, single wick whale oil lamps or home-made tallow candles.

In the midst of this strenuous life the mission children were not suffered to fall below the same standard of activity. The same early morning hours found them at their lessons, and, under the tuition of their parents, they made such rapid progress that at the age of nine, the subject of this sketch had finished arithmetic and progressed into algebra; had finished Blake's Natural Physiology; was studying Latin and botany; was an adept speller and was taking lessons in drawing.

Owing to the then lack of advanced schools in Hawaii, the earlier mission children were all "sent home" around Cape Horn, to "be educated."

This was the darkest day in the life history of the mission child. Peculiarly dependent upon the family life, at the age of eight to twelve years, they were suddenly torn from the only intimates they had ever known, and banished, lonely and homesick, to a mythical country on the other side of the world, where they could receive letters but once or twice a year; where they must remain isolated from friends and relatives for years and from which they might never return.

In accordance with this formula, Sereno Bishop was sent away in November, 1839, when only twelve years of age. He graduated from Amherst College in 1846 and from Auburn Theological Seminary in 1851, and was married to Cornelia A. Sessions on May 31, 1852. They celebrated their golden wedding in Honolulu in 1902. An item of "human interest" in this connection is that the young couple became acquainted by meeting at the house of a mutual acquaintance, when Mr. Bishop read aloud the installments of "Uncle Tom's Cabin," then appearing serially in a New York weekly.

Young Bishop early decided to be a missionary, and accordingly when offered the position of seaman's chaplain at Lahaina, Maui, in 1852, he immediately accepted and proceeded to his post, via Cape Horn and San Francisco, arriving January 16, 1853. On the way out a three weeks' stay was made at Rio Janeiro, Brazil, where particular notice was taken of the grand avenue of royal palms, from which upon another occasion, Dr. Judd carried away a couple of seeds which he subsequently planted at the "Bates" place, now Samuel Baldwin's, on Nuuanu street, Honolulu. One grew and still stands. From this one seed have come all the royal palms in the Islands.

To those who know Lahaina but as a sugar plantation town, it may be said that it was then the center of shipping activity of the Pacific, being the port of call of over 300 American whale ships, besides other commercial and national vessels. It also still divided honors with Honolulu as the seat of government, and was the center of a large population, both native and foreign. It was at Lahaina, only a few years before, that the commander of a United States warship forced the repeal of a law against vice, by threats of violence, and that five cannon balls were fired at the house of the resident missionary, the Rev. William Richards, because of his influence with the native government in support of laws against immorality.

The writer's mother, who was born at Lahaina and spent her earlier

years there, once told him that two of these cannon balls, which fell in the Richards' yard, were for years playthings for herself and the other mission children.

The Bishops remained nine years at Lahaina, where five children were born to them, two little boys being left in the Lahaina Mission church yard.

With the rise of Honolulu in importance as a seaport, Lahaina declined, and in 1862 Mr. Bishop transferred his residence to the isolated station at Hana, Maui, where for three and a half years he served as a missionary of the American Board. The journey had to be made overland on horseback, occupying several days, the children being carried in a canvas "maneie," on the shoulders of a couple of stout Hawaiians. The only other whites living in Hana were Mr. and Mrs. Wm. Needham and their daughter Hattie.

In 1865, still in the service of the Board, he became principal of the Lahainaluna industrial school, then the only one of high school grade available to Hawaiians, in which position he continued until July, 1877.

The writer well remembers his vigorous and kindly nature at this period. He visited our home at Makawao, about 1872, and wishing to try out a horse which he contemplated buying, invited me, a fourteen-year-old boy, to accompany him home, which I did on a little roan pony with a white face and one white eye. There was neither road nor fence across the plain, now occupied by the Hawaiian Commercial Plantation, at Maalaea Bay, and access to Lahaina was by a steep and rough trail over the mountain, rising to an elevation of over a thousand feet. We made the distance, some thirty odd miles, in four and a quarter hours. Mr. Bishop bought the horse. Incidentally, from Lahaina I went to Honolulu by the schooner Nettie Merril, originally a Boston pilot boat, departing during a heavy Kona. During the course of embarkation boats were twice capsized in the surf, one containing the captain of the schooner, Ezra Crane, father of the present manager of The Hawaiian Gazette Co. The captain could not swim and was rescued from under the boat by the native crew.

I have a most vivid memory of the whale boat coasting down the huge breaker, suddenly shearing off with terrific speed along the front of the wave, into the mounting face of which the steersman and five oarsmen instantly and simultaneously dived, the boat being overwhelmed with its lone occupant.

Mr. Bishop remained at Lahainaluna for twelve years, when he re-

signed, in July, 1877, on account of the strain on his health caused by a continuous indoor life. Moreover, the school had theretofore been taught exclusively in Hawaiian and it having been decided to change to English, Mr. Bishop thought it better that the change should be inaugurated by some one else.

While at Lahainaluna, he was one of the first to make the ascent to the top of West Maui, Mount Eke, where there is a sheer descent into Iao Valley of approximately 3000 feet, and from which he obtained a view of all the islands from Hawaii to Oahu. Mr. Bishop was wont to say that after visiting all the islands and their most spectacular features, he considered this view from Eke the most wonderful and beautiful of all. Mr. Bishop considered that the work which he did among the native students at Lahainaluna was among the most fruitful of his life. He left his mark at Lahainaluna, physically, in the shape of the grand avenue of monkey pods on the road to Lahaina, which he personally planted.

From Lahainaluna Mr. Bishop removed to Honolulu, where he lived until his death, March 23rd, 1909.

As evidence of Mr. Bishop's versatility, he now joined the staff of the Hawaiian Government Survey Department, and for four years was in its active service, both in the field and office. Among the more important work done by him, was the compilation of the first detail map of the Island of Kauai, and the mapping of the complicated land titles and water rights of Nuuanu Valley, in Honolulu. After this he continued independently in the profession for eight years more.

At this time he bought a piece of land on Liliha street, laid it out into lots and streets, and sold the lots. So far as I know this was the first "addition" to the city on recognized modern lines. Kuakini street was opened and named by Mr. Bishop at this time; that being the name that he was known by among the Hawaiians in his youth, it being derived from the Governor of Hawaii, who lived at Kailua when Mr. Bishop was a boy there.

While a vigorous theologian, he was not entirely of the old school.

For example, he immediately accepted Darwin's theory of evolution, at a time when such theory was considered by the religious world in general to be rank heresy. Differences in denominational creeds did not appeal to him. One of his standard positions was that: "all the creed that a Christian needs is 'I love the Lord Jesus Christ.'"

Mr. Bishop was of an intensely analytical and logical nature, and a

close student both of sociological questions and the laws of nature. Geology, more particularly volcanology, especially interested him.

An amusing incident grew out of an article published by him, in 1901, dealing with Diamond Head, Punchbowl, and the other tufa craters in the vicinity of Honolulu, in which he gave an estimate in round numbers of their respective ages. Some time later a ma-li-hi-ni asked a ka-ma-ai-na how long ago Diamond Head was an active volcano. "Just 20,008 years ago," was the prompt reply.

"How do you arrive at that exact figure?"

"Why, just eight years ago Sereno Bishop said it was 20,000 years old; therefore, it must now be 20,008 years old."

In illustration of his breadth of learning and wide information, a book canvasser called at the house one day and expatiated upon the value of an encyclopedia which he represented. A little grand daughter listened to the talk and finally broke in with the remark: "We don't need that book. When we want to know anything we ask grandpa."

In 1887, Mr. Bishop assumed the editorship of the "Friend," a monthly journal, founded in Honolulu in 1843, "the oldest publication west of the Rocky Mountains." This connection continued until May, 1902.

Originally devoted especially to the interests of seamen and the advocacy of temperance, the Friend had become, practically, the unofficial mouth piece and recorder of the Protestant religious life and progress of the Islands. Sereno Bishop added to this, vigorous editorial advocacy of civic righteousness and progress and development in social, mercantile and governmental affairs.

As the conflict developed during the latter eighties and early nineties, between reactionary tendencies and the progressive element of the community, which finally culminated in the overthrow of the monarchy and annexation to the United States, Mr. Bishop developed a remarkable faculty of analysis of the complicated situation and a powerful, virile use of English which carried conviction as to the knowledge of the subject and sincerity of the author; the accuracy of his statements and the soundness of his conclusions. His contributions were not confined to the columns of the "Friend," but extended to the local press and to magazines on the mainland. He it was who, in an article contributed to a mainland magazine, coined the phrase descriptive of Hawaii, since universally used, "The Cross Roads of the Pacific." Most import-

ant of all, he became the correspondent of the Washington, D. C., Evening Star, under the name of "Kamehameha."

The high standing of the Star; the clear and fearless statements of fact and the sledge-hammer logic of the conclusions reached, were invaluable as an educative influence on the American public during the interregnum between the overthrow of the monarchy in 1893 and the consummation of annexation in 1898, and were a powerful factor in the achievement of the final result.

Mr. Bishop had previously commanded local respect and attention as a scientific thinker and writer, but he achieved international fame in this respect in 1883.

Early in September of that year there suddenly began a continued series of the most gorgeous and beautiful sunsets and sunrises. The most remarkable feature, however, was the "after glow," extending for hours after sunset and before sunrise. At Honolulu it did not continue so late as in more northern latitudes; but for an hour or more after sunset the whole western heavens glowed with the intensity of an incandescent electric light, throwing a weird and ghastly reflection on the landscape. The writer retains a most vivid recollection of the grandeur and strangeness of the scene, in connection with the odd circumstances that, being then a member of a baseball team, we were able to play ball much later than had previously been the case.

Another remarkable feature was that throughout the day there were halo-like rings possessing a metallic glitter, around the sun.

The whole world was agog with wonder and inquiry as to the cause of the phenomena. There were the usual suggestions of the approaching end of the world and endless speculations, but no theory which would hold water, until from far Hawaii, over the signature of Sereno E. Bishop, appeared an article, illustrated with drawings demonstrating the argument, propounding an explanation which was eventually unanimously accepted by the scientific world as correct.

It appeared that on August 26, 1883, one of the most tremendous volcanic explosions recorded in history occurred on the Island of Krakatoa, off the coast of Java. Varying estimates were made that, from one to twelve cubic miles of material, were blown into fragments, the finer dust being projected so high that it reached sufficiently beyond the attraction of gravitation to lag behind the revolution of the earth and the lower atmosphere, thereby in the course of a few days extending around the earth and shortly completely enveloping it. Mr. Bishop

evolved the theory that the reflection of the sun's rays on these minute particles was the cause of all the phenomena, and the theory was adopted, the circles about the sun being named in his honor the "Bishop Rings."

In 1896 his alma mater, Amherst College, conferred upon him the degree of Doctor of Divinity, in recognition of his literary and scientific attainments.

Sereno E. Bishop was one of those of whom it is true, that "the world is wiser and better by reason of his having lived in it."

LORRIN A. THURSTON.

Honolulu, Sept. 30, 1916.

Memories of Kailua

THE writer was born near Kailua, and passed his first nine years there, until removal to Ewa in 1836. Life in an early missionary's home was peculiar. Recollections of it will no doubt interest many persons.

In the early thirties, Kailua was a large native village, of about 4000 inhabitants rather closely packed along one hundred rods of shore, and averaging twenty rods inland. It had been the chief residence of King Kamehameha, who in 1819 died there in a rudely built stone house whose walls are probably still standing on the west shore of the little bay. Near by stood a better stone house occupied by the doughty Governor Kuakini. All other buildings in Kailua were thatched, until Rev. Artemas Bishop built his two-story stone dwelling in 1831 and Rev. Asa Thurston in 1833 built his wooden two-story house at Laniakea, a quarter of a mile inland. Many of the native cottages were commodious and neat inside, belonging to natives of more or less rank. But the great majority were small, and betokened, great poverty, both outside and within. There was an immense church on the same ground where now stands the old stone church. This was erected by Governor Kuakini about 1828. It was a wholly native structure, framed with immense timbers cut and dragged from the great interior forest by Kuakini superintending his subjects in person. The thatch was of the very durable la-i or ti leaf. Most of the native huts were thatched with the stiff pili grass. The better ones were thatched with lau-hala (pandanus leaf) or with la-i.

KAILUA IN THE TWENTIES.

Kailua was the capital of the Island. It is situated on the west coast, twelve miles north of Kealakekua, where Captain Cook perished. It lies at the base of the great mountain Hualalai, 8275 feet high. The entire coast consists of lava flows from that mountain, of greater or less age. Here and there in the village were small tracts of soil on the lava, where grew a few cocoanut, kou, and pandanus trees. There were no gardens, for lack of water. Heat and general aridity characterized the place. But it pleased the natives, on account of the broad calm ocean, the excellent fishing, and the splendid rollers of surf on which they played and slid all day.

North of the town, the whole region seemed to be occupied by an ocean of black billowy lava which at some recent period had flowed down from the mountain. This bounded that end of the village. A vast breadth of this lava-sea had invaded the ocean for miles, beyond the older shore line of Kailua. A wide tongue of lava had bent around and partially enclosed the little cove with its deep sand beach where was the chief landing of the town.

SURVIVAL OF IDOL WORSHIP.

On this lava breadth, back of Kamehameha's house, was a heiau, or temple-platform of stone, where were standing five tall wooden idols. We used occasionally to go there and look at their huge shark-mouths and other grotesqueness. I suppose that out of respect to the deceased Conqueror, these gods of his had been permitted to survive the general destruction of the idols of Hawaii. No doubt the fear of them was still strong in the minds of the people. I never

heard what finally became of them, but have heard that after we left Kailua, Governor Kuakini suffered a relapse into idol-worship, and that Father Thurston descended upon the formidable old chief, and berated him with such severity that he submitted and repented. I well remember the tremendous governor. He was an enormous man of great stature, and proportioned like Mr. Paul Isenberg, Jr. His weight was estimated at 500 pounds. I used to see him mounted on a strong "calico" horse whose back bent under his weight, and which seemed to trot with difficulty. All the natives, high and low, stood in great awe of him, and crouched abjectly in his presence, crawling on hands and knees. Kuakini paid us occasional visits, occupying a very broad arm chair my father had made. He used to take some notice of the small boy, whom many of the natives called after his name. But his calls were long and tedious, if infrequent. His wife, Keoua, was like himself, a royal chief of highest rank, and not quite equally ponderous. I remember seeing the princely pair lolling on their own pile of rich Niihau mats, with many attendants busily kneading their bodies and limbs (lomi-lomi). Ages of nourishing diet and massage for digestion had bred a royal Hawaiian race of immense stature and girth.

APPEARANCE OF CHIEFS AND PEOPLE.

The relative rank of other natives could be approximately estimated by their stature and corpulence. There were quite a number of large fat men and women of some rank among our neighbors. The leading women met weekly at our house, most of them wearing the lei-pa-laoa, consisting of a thick bunch of finely plaited hair passed through a large hole in a hooked polished piece of whale-tooth, and tied around the neck, forming an insignium of rank. They also carried small kahilis to brush away the flies. Any chief of high rank was attended by one or more fly-brushers, by a spittoon-bearer, and other personal attendants. The spittoon holder was the most honored, being responsible to let none of the spittle fall into the possession of an evil-minded sorcerer, who might compass the death of the Alii therewith. Broad, elastic cocoanut leaf fans were in constant play.

Hawking and spitting were continued in any gathering of natives, and were apt seriously to disturb public worship at church.

But the great crowd of the common people were miserably lean, and often very squalid in appearance. They were too much in the sea to appear filthy, although the heads of both high and low were thoroughly infested. It was a daily spectacle to see them picking over each other's heads for dainties. Their vicinity rendered necessary the frequent use of a fine-toothed comb on us children, much to our discomfort. But I believe our ancestors at no remote period were little better off.

SOURCE OF FOOD SUPPLY.

The people had ample cultivable land in the moist upland from two to four miles inland at altitudes of one thousand to twenty-five hundred feet. It is a peculiarity of that Kona coast that while the shore may be absolutely rainless for months gentle showers fall daily upon the mountain slope. The prevailing trade-winds are totally obstructed by the three great mountain domes and never reach Kona. There are only the sweet land breeze by night, and the cooling

sea-breeze by day. The latter comes in, loaded with the evaporations of the sea, and floats high up the mountain slopes. As it rises, the rarification of the air precipitates more and more of its burden of vapor, so that at two thousand and three thousand feet, there are daily copious rains, and verdure is luxuriant. The contrast is immense and delicious between the arid heat of the shore, and the moist cool greenness of the near-by upland. The soil is most fertile, being formed from the decay of recent lava flows. There the natives found their chief means of subsistence, and, in good seasons, were sufficiently fed. In bad seasons there were drought, and more or less of "wi," or famine. The uala or sweet potatoes, and the taro, which constituted their chief food grew best on the lower and warmer ground, where was more liability to drought.

CAUSES OF DESTITUTION.

The chief causes of destitution were the ceaseless oppression of the chiefs, and the attendant shiftlessness of the people. No one owned his land, and occupied it solely at the will or caprice of his chief, who might and often did without notice deprive him of the products of his toil, and even of the land itself. The village was much infested by miserably lean pigs, whose scant food came by scavengering. Occasionally a pig was fattened in a pen. But the eye of the chief's retainer was usually upon any such pigs, and it was likely to be snatched away, even after being cooked. No one dared to remonstrate. Hence the village was a place of great and squalid poverty. No man or woman could earn the smallest coin. No money was in circulation. The women very commonly plaited mats of lau-hala, and there was much beating of tapa, or bark-cloth. It is a dreary memory of childhood, that dismal resonance of the tapamallets all around the village.

STYLES OF CLOTHING.

The common multitude wore no foreign cloth. Their few garments were wholly of tapa. The younger women were rarely seen uncovered beyond decency, although old crones went about with the pa-u only. The smaller children had nothing on. The men always wore the half-decent malo, and nothing more. At meetings, they wore the little kihei, or shoulder cape. Before 1836, simple cotton shirts would not unfrequently be seen in the church. I never saw but two Hawaiians wearing trousers in Kailua. One was Kuakini and the other Thomas Hopu, from the Cornwall School, who came out with Bingham and Thurston. The national female costume was the pa-u, which was worn by all at all times. It was a yard wide strip of bark-cloth wound quite tightly around the hips reaching from the waist to the knees, and secured at the waist by folding over the edges. Foreign cloth was also used. At one great ceremonial, a queen had her body rolled up in a pa-u of one hundred yards of rich satin.

SOURCES OF DRINKING WATER.

The drinking water of the people was very brackish, from numerous caves which reached below the sea level. The white people, and some chiefs had their water from up the mountain where were numerous depressions in the lava, full of clear, sweet rain water. There were also many tunnel-caves, the chan-

nels of former lava-streams. The air from the sea, penetrating these chill caverns, deposited its moisture, and much distilled water filled the holes in the floor. Sometimes the fine rootlets of ohia-trees penetrating from above, festooned the ceilings of these dark lava-ducts as with immense spider webs. If in a dry season, water was lacking on the open ground, it could always be found higher up on the mountain in such caves. Twice a week one of our ohuas or native dependants went up the mountain with two huewai, or calabash bottles, suspended by nets from the ends of his mamaki or yoke, similar to those used by Chinese vegetable venders. These he filled with sweet water and brought home, having first covered the bottles with fresh ferns, to attest his having been well inland. The contents of the two bottles filled a five-gallon demijohn twice a week.

DOMESTIC ECONOMY OF THE MISSIONARIES.

For cooking and cleaning purposes, the brackish water sufficed. I liked it for drink as a child, although it later became revolting. Our people took our clothes up the mountain to be washed. The wealth of clothing hung out on the lines was a wonder to the people, who had none. On one day when my father was about to sail to Honolulu, his six new shirts hung out on the line together. A great amazement pervaded the minds of the villagers at the incredible opulence of their spiritual father, and the premises were surrounded with crowds to gaze at the marvel. Our house occupied about an acre of land, half of it in yards for our native ohuas, and for domestic animals, cows, pigs, and poultry. The other half where the children played was surrounded by a high wall topped by a projecting paling to bar out native intruders. Four men and their wives constituted our force of servants. For wages they received their living. We had a block of land up the mountain where the men cultivated food for us and themselves. I believe it is the same land now owned by Miss Baird, as reported in October Friend. We had up there flourishing orange trees and grape vines, and were well supplied with taro, sweet potatoes, bananas and sugar cane. Very oddly we had not learned to cook bananas.

STATUS OF SERVANTS OF THE MISSION.

The position of house-servants to missionaries was one greatly coveted by the natives, who were miserably poor. They were exempt from the grinding oppressions of the chiefs and their retainers. They always had abundance to eat and wear, and were people of importance in the community. My personal nurse in infant years was Maunualua, the wife of our very capable and energetic cook Kalaikini. They left us in 1832 to be schooled at the new Lahainaluna Seminary. Kalaikini had great business capacity, and became an excellent mason and builder in Lahaina. Under my father's guardianship, most of his numerous children had survived, and a large family grew up. The like was the case with a majority of the old native servants of the missionaries, while most of the children of other natives died in infancy through mismanagement. A grand-daughter of Kalaikini is now a millionaire of much social position, and wide travel.

THE MISSION FOOD SUPPLY.

At one time, in the twenties, the two mission families at Kailua had a severe experience of famine with the people, and were unable to procure the ordinary food. It was a blessed God-send when rain came, and a plentiful crop of wild mustard sprang up, furnishing abundance of boiled greens. I think we always had enough food to eat, such as sweet potatoes, taro, poi, goat's milk, bananas, sugar cane, fresh pork, chickens, turkeys and fish. Irish potatoes we never saw, nor beef except salted, procured from whalers. Wild cattle abounded on Mauna Kea, on the other side of the island. We and the Thurstons each kept a few cows which grazed on the sparse herbage of the lower slope. They were from the wild stock introduced from California by Vancouver, and yielded little milk, which was reserved for butter. A good flock of goats gave a good supply of milk for the table, and the kids were delicious eating. My step mother was a good cook, and we often had puddings of rice and of pia, or arrow-root, which was an abundant wild product of this country.

CONDITION OF FLOUR.

Rice came from China, generally becoming very weevily. Our scanty supplies of flour came from Boston, ordered by our fiscal agent, Mr. Levi Chamberlain. Coming around Cape Horn, before the art of kiln-drying had been learned, it was commonly mouldy, and full of large white worms. After careful sifting, the good lady would proceed to incorporate into the flour an equal bulk of boiled sweet potato thoroughly rubbed in, so as seldom to betray its presence. The bread was fairly light, and far better than no bread, though we children got little of it, and no butter at all. Mrs. Thurston's bread used to be much darker. I think she worked poi into it. Sour milk was abundant and helped, with *salaeratus*, to make the bread light. Mr. Chamberlain allowed each mission family one barrel of flour per annum. I remember witnessing my father and Mr. Thurston in the act of dividing a barrel of flour, which may have been an extra bonus. They sawed it in half. The inside was solidly caked, mouldy for two inches in, and thoroughly wormy. It was all eaten except for the mouldy exterior.

LITERARY AND MEDICAL WORK OF THE MISSIONARIES.

Messrs. Thurston and Bishop both enjoyed vigorous health, and labored hard in their calling. What we children saw was for one thing their daily toil at their tables in translating the Scriptures from the original Greek and Hebrew into the Hawaiian vernacular, their manuscripts being forwarded for revision after mutual comparison, to Mr. Richards at Lahaina, or Mr. Bingham at Honolulu. There was also much preparation of school books and of hymns. These studies, however, were constantly interrupted by calls from natives at all hours, very commonly for medicine. Mr. Bishop, being centrally located, had most of this work. He had shelves full of medicine bottles, also a chest of drugs which, when opened, dispensed a sickening odor of aloes. A prominent drug was red precipitate of mercury, which he used to dust upon the fearful syphilitic ulcers which disfigured so many of the people's limbs and faces. Salts, blue-



REV. ARTEMAS BISHOP
Missionary to Hawaii; father of Sereno E. Bishop



pill and calomel were leading drugs which I heard much of. Blood-letting was a constant remedy in which Father Bishop was an adept. Binding the arm, he would prick the lancet into the swollen vein, and the dark blood would spurt three feet into the basin held to receive it. That is obsolete practice, yet he undoubtedly relieved much misery, and saved many lives, for the people confided in him, and could not be frightened by their kahunas from seeking his ministration, although multitudes of them perished by the malpractice of these sorcerers.

RELIGIOUS AND EDUCATIONAL WORK.

Both these missionaries, in addition to the regular Sabbath and week-day services of the town, alternately held similar services in the villages within six miles each way, going by canoe, or often on foot, having no horse until 1835. They also did an arduous labor in superintending the very inefficient work of the native teachers in the schools of the region. Every few months was held in the great church a grand field-day, called Hoike, or exhibition, when all the pupils of the schools in the district assembled, and displayed their acquirements. We children thought these high times, when platoons of gaily-rigged women and half-naked men would stalk to the front and pronounce the lessons prepared. Sometimes they would be commended, but occasionally a stern rebuke would be administered to the teacher. These performances would often last all day, and the attending crowds never seemed to weary. Great progress was made in those schools, through much and long toil which has culminated in the present universal literacy of the Hawaiian people.

THE MISSION HOME IN 1831.

My earliest memory of our home was that of two thatched cottages, set closely side by side, and raised upon a low stone platform. One was thatched with la-i, the other with pili-grass. On my fourth birthday, in February, 1831, my father led me a few rods inland to see the stone house he was building. I remember the awe with which I gazed into the gloomy depths of the still open cellar. A Mr. Castle was the carpenter. Most of the lumber used was koa, from the forest inland. The floors were of wide boards, sawed by hand, under Mr. Castle's superintendence. He afterwards made shingles for the house out of the same timber, although it was at first thatched with la-i. The shingled roof yielded a supply of rain-water in the rainy season. The house was well built and commodious, with three rooms in each story, and verandahs on the seaward side. There was also an ell inland containing the dining-room and kitchen. In the kitchen was a brick oven, also an old iron stove of antiquated form. In the fireplace were the usual equipments of crane and pendent hooks for kettles.

SURF-RIDING AT KAILUA.

Dr. Andrews succeeded us in 1837 in the occupancy of the house. In 1838, his son was born there, Dr. Geo. P. Andrews, now of Honolulu. Of the five years spent in this house I have vivid and many pleasant recollections. From

the upper verandah, my older sister and myself often watched the active gambols of the crowd of natives sliding on the great rollers of the surf, which we could see through the stems of a grove of cocoanut trees. That now nearly forgotten sport was then in its fullest activity. In the absence of horses, equestrian sport had not displaced it. Each one swam out with the light surf board under the arm, diving under the incoming combing rollers. Reaching the point where the waves began to comb over they adjusted themselves adroitly on the front of the wave in a prostrate position on the board. With a few rapid strokes of the hands and feet, they were in motion, and the wave itself did the rest, shooting them forward. The sea spurted in front of the darting board, while the surf foamed over them behind as they slid down the deep hill of the wave, which ever came pushing up under them. It required great skill to maintain the precise position on the slope of the wave, which was necessary, and sometimes a less practiced one would be overtaken by the comber and left behind. But a majority of the performers were able to kneel on their boards, and many of them to stand erect after getting started.

SURFING AND CANOES.

This was a universal sport of the chiefs and common people alike. The ponderous chiefs had very large boards of light wood. In the Bishop Museum may be seen today an immense surf board of the cork-like wili-wili wood, on which the famous Paki used to disport himself at Lahaina fifty years ago. I doubt whether Kuakini, with his 500 pounds, was agile enough to attempt it. In handling canoes the natives were most adroit. Kona, with its great koa forests inland abounded in canoes. There were no boats. The people were skilled fishermen and often went many miles to sea, in pursuit of the larger deep-sea fish. A name given to Mt. Hualalai behind us, was "Kilo-waa," or Canoe-descrier. The canoes were of elaborate form and smoothness. Most of them were single canoes with outriggers. Many large ones, however, were rigged double, six or eight feet apart, with a high platform between them. All the fastenings were of carefully plaited sinnet or cocoanut fiber, the lashings being laid with great care and skill. The mast was stepped in the platform. The common people had mat sails. Those of Kuakini's canoes were of sail-duck.

THE THURSTON HOME.

I think it was a year later than ours, that Mr. Thurston built his wooden house at Laniakea, a quarter mile inland and perhaps 150 feet higher. It was a very rocky, arid site. The walled enclosures must have occupied two acres. A little back in the premises was a lofty pile of clinker stones, which may have been natural, or perhaps a heiau or place of idol-worship. Around the base of this pile on the barren rocks grew a number of the singular pilo-pilo plants very luxuriant. They have large plummy flowers which emitted a strong odor like prussic acid. The fleshy legume was on the end of the long pistil, and could be pickled as a caper. During the shorter moist season, the common weeds of the place were mustard, and a thorny poppy with a large white flower. This was probably introduced from Mexico with cattle. Purslane abounded. A

common weed in Kailua was the no-hu, which we bare-footed children held in dread on account of its large seeds with four sharp prongs, one of which was always in a vertical position. The bright yellow flower was a very pretty one; we called them daisies, and the running plants briars.

Just back of the Thurston house was a deep pit, which was the mouth of an immense cave extending to the shore, ending in a pond of brackish water at sea-level. We occasionally joined a party of visitors in exploration of this cave with lamps. There were one or two difficult passages, and one lofty chamber, with a small opening above, admitting a glimpse of light. There were many stalactites and stalagmites of small dimensions. From the mouth of the cave a continuation extended inland, but the entrance of this was blocked by debris. I remember a visit from a shipmaster and his wife who started to explore the cave. The lady came on with us, but the brave captain, who would coolly rush his boat on a whale, dared not push into the dread darkness, and retreated. I think Mrs. Thurston kept her milk pans on the cool mouth of the cave.

THE MISSION DOMESTIC ANIMALS.

There was a large cow pen, of great interest to us children, with its calves, and the well made frames to hold the necks of the cows while milked. Their legs were tied to stanchions to prevent kicking, and then the indispensable calf was applied to induce the cow to give down her milk. Two quarts per cow was considered a large yield. They were from the wild, long-horned Mexican breed, which can be handled only with the lasso and heavy whip.

A very large black boar in a pen was also an object of interest and much fear. He may have been of some improved breed. Most of the native pigs were of the razor-back species, with immense heads and bristling spines. Their dogs, which were their meat as well as pigs, were of small size with upright ears. I never saw, except in a picture, a dog with drooping ears until perhaps ten years old. Cats we kept in plenty. An old black puss was a beloved pet who after a protracted absence, when we reached home came running and jumped all over us. Not long after she mysteriously disappeared. The Thurston cats were yellow.

On the road between our house and the Thurstons' was the goat-pen used by both families. It contained a large flock, which were driven down to it every afternoon to be milked. The gambols of the kids were entertaining. In milking, the goat was laid down on her side. A little to the north of the road was a well some sixty feet deep, which the missionaries had dug through the lava many years before, but the water found was brackish. Nearer the shore the road led past some caves, or rather lava-bubbles, which were of sufficient area to form convenient places for beating tapa. The mallets were generally hammering away.

LIFE OF THE MISSION CHILDREN.

I have delightful recollections of our intercourse with the Thurston children. There were three, Persis, Lucy and Asa. Later were born Mary and

Thomas. Persis is the only survivor, now the venerable Mrs. Taylor in her eightieth year, who has had great experience of social and religious activity. Lucy was a girl of the sweetest amiability who died in New York City, February 24, 1841. Asa was nearly my own age, a boy of great activity and a pleasant playmate. After graduating from Williams College he married in Honolulu and left one son, the distinguished Lorrin A. Thurston. Both of the families were under very careful and systematic discipline. Once a week on Wednesdays was a holiday afternoon when the five children played at each house on alternate weeks, and at 5 o'clock attended a half-hour's English prayer meeting, after our elders had been to the native prayer-meetings. The religious instruction at both houses was very thorough; we were all very familiar with the bible and a great deal of religious exhortation was addressed to us, perhaps not wholly adapted to our tender minds. Our parents diligently did their duty according to their old-fashioned Calvinistic lights.

CHILDREN DID NOT LEARN HAWAIIAN.

We children were not permitted to learn any of the native tongue until later years. The reason of this was to prevent mental contamination. There was no reserve whatever upon any subject in the presence of children in the social and domestic conversation of the native people. The vilest topics were freely discussed in their presence and the children grew up in an atmosphere of the grossest impurity. The same strict tabu was enforced in nearly all the mission families. It grew out of very unhappy experiences in the families of the early missionaries in the Society Islands, a visiting deputation from whom had earnestly exhorted our younger missionaries strictly to keep their children apart from the natives. I remember that when I first attended a public school in Rochester at the age of thirteen, I was confounded by the prevalent grossness of speech among the boys, when by ourselves, although they never talked so before the other sex.

LITERARY INSTRUCTION OF CHILDREN.

An exceptional feature of the family life was the diligent early literary instruction of the children. Both of the mothers were able teachers, although Mrs. Thurston was disabled by maternity and some serious ill health from engaging actively, as Mrs. Bishop did, in teaching the native schools. The children of the latter were thoroughly taught. There was some concert between the two families, and a degree of rivalry. Before leaving Kailua at the age of nine, I had been carried with the other four children through all the arithmetic I ever learned and into elementary algebra. We had also all gone through Blake's Natural Philosophy, a very good elementary book on physics, for which I had an especial turn. We had made some progress in easy Latin. My sister and myself in the old-fashioned way, had "passed" through the whole of Pollok's "Course of Time." We were all adepts in spelling. There was some botany and some exercise in drawing. Altogether it was quite a little university. Books were scarce, and were daily exchanged between the two families. Asa brought down the package of books from the hill and I trotted back with them.



S. E. BISHOP IN 1851
(From a Daguerreotype)



CORNELIA A. SESSIONS IN 1851,
MARRIED S. E. BISHOP IN 1852
(From a Daguerreotype)



STUDYING UNDER DIFFICULTIES.

Our mother always went to her large native school at 9 a. m., and finished teaching her own children before that hour. Latterly we had to rise at four o'clock, and work an hour with slate and pencil on the arithmetical problems of "Colburn's Sequel," in which we delighted. We had one tin whale-oil lamp between us, with a single wick. Both of us became near-sighted, but otherwise had sound eyes. Soon after five we had breakfast. Our stepmother was a notable worker. Before four o'clock her voice would be heard calling, "Mr. B., I think it's past four. Look at your watch!" Mr. B. would open his tinder-box, seize steel and flint, deftly strike a light, and perhaps pronounce it half-past three. He himself rose at five. I saw my first "lucifer" matches in 1838. Mr. B. split and dipped his own sulphur matches, and burnt his own tinder. The natives produced fire by swiftly rubbing a hard pointed stick into a groove in soft dry wood. They also used an old file with a gun flint.

For some reason I was once sent up the hill with the books at an unusual hour before daylight. I found the three Thurstons at their lessons, seated at a table built around a post in the center of the sitting room. They were using a tallow candle, which was a novelty to me. Each one was enveloped in a large tapa, after the manner of the natives in cool weather. Tapa, like newspaper, was a good defense against cold, whether as blanket or wrapper. Its defect was inability to resist moisture. We had few toys. There were cask-hoops to drive with a stick, small kites, also little bows and arrows. We had jack knives and learned to whittle. My knife I was prone to lose.

SUNDAY REGIME.

Sunday was a very solemn day. We were all rigged in our best, and went to church at 9 a. m. There was Sunday school for an hour. During the last few months at Kailua, I was promoted to the function of teaching a class of natives, to the extent of hearing them each recite a number of verses which they had memorized. There was always a large congregation in the immense church. Knowing no Hawaiian, we white children came provided with books which we diligently read during the sermon. Mr. Thurston and Mr. Bishop did duty in Kailua on alternate Sabbaths, the other one walking to out-stations a few miles distant. On the quarterly Communion Sabbaths they officiated together, when there were usually a large number of natives baptized. These were great occasions. I well remember the impressive appearance of the two stalwart missionaries walking together in their black gowns and white "bands."

DESTRUCTION AND RECONSTRUCTION OF KAILUA CHURCH.

During our absence at general meeting in Honolulu in 1835, the great church was burned by some incendiary, and the services were then conducted in a large canoe-shed of the Governor, which was vacated for the purpose. There must have been something of a revival of religion at that time, as an unusual number of people were baptized, and some of them were weeping. Some young missionaries had recently arrived, fresh from Finney's great revivals, among them Titus Coan and Lowell Smith, and had imparted the flame to their older brethren. The energetic Kuakini immediately set about building the great

stone church now standing on the site of the old one. We did not remain at Kailua to see it completed. I remember that the corners were built up with large square blocks of pahoe-hoe lava, which were transported by the people from some heiau at a distance. They were smoothly hewn, evidently with great labor.

REVIVAL OF HEATHENISM BY KALAKAUA.

I regret to record that about in 1886, King Kalakaua held a grand political meeting in that church, and caused his henchman orator, Kaunamano, to proclaim that while the worship of Jehovah was proper, Hawaiians must not neglect the worship of the lesser gods, who were so much nearer, and exerted so much power over their lives. This was done in order to promote sorcery and bring the nation into political subjection to the king himself as the chief sorcerer. He had in fact made himself a god, and taught the people to pay him divine honors. The sacrilege of that idolatrous proclamation at Kailua was the greater in that the spot was the one where the first proclamation of Christ in Hawaii had been made in 1820 by Bingham and Thurston.

VISITS TO KAAWALOA.

Our nearest missionary neighbors outside of the town of Kailua were the Ruggleses, who lived at Kaawaloa, twelve miles south. Their dwelling was at Kuapehu, two miles up the mountain, a most verdant and attractive spot. It later became the residence of Rev. John D. Paris. Kaawaloa proper was a village on the north side of Kealakekua Bay. I was born there at the house of Mr. and Mrs. Ely, only a few rods from the rock where Captain Cook was slain and where his monument now stands. We often visited Kaawaloa, probably twice a year, going by water in a double canoe, generally starting two or three hours before daylight, so as to carry the land breeze a good part of the way. There were a number of paddlers in each of the two canoes, who would make the long craft fly swiftly through the sea. The steersman in the stern would give the signal by a slap of his paddle against the canoe, and all the rowers would shift their paddles in unison from one side to the other.

We children generally laid upon the raised platform with the mother, though sometimes in the bottom of a canoe. We were apt to be seasick, and then go to sleep, sometimes awaking to see the waves dashing on a coast of black lava cliffs. We would run up the little bay and step ashore upon Cooke's rock, whence it was only a few rods to the nice premises of the good Princess Kapiolani. These were prettily thatched cottages on a platform of white masonry which was studded with black pebbles. Kapiolani's quarters were neatly furnished within. She was generally there to receive us with the most cordial hospitality. Immediately behind the house was a precipice perhaps two hundred feet high. This seems to have been caused by a former breaking off of the coast line for many miles. Great lava flows had subsequently poured over the precipice to the north and south, so as to enclose the bay, leaving half a mile of the precipice at the head of the bay untouched.

THE RUGGLES FAMILY AND HOME.

The next thing was to surmount the formidable pali. There were plenty of natives to carry up the lady and children in the lack of animals. From the summit, two miles of slope brought us to the delightful home of the Ruggleses, where we were again lovingly welcomed. Mrs. Ruggles was a tall, sweet-faced woman of kindest character. Mr. Ruggles was a pleasant man of small stature, who was often absent from home touring among the natives, his health requiring such activity. There was a luxuriant garden, with luscious grapes and figs and coffee trees in fruit. There were also orange trees, and in the vicinity many old ohia trees with the ripe apples bestudding their gnarled trunks. The mission dwelling was a large thatched house, with several glass windows. A matter of special delight was the company of two very agreeable children of our own ages, named Huldah and Samuel, of whom we were always very fond.

HOW FAST DAYS WERE KEPT.

The Ruggles family returned to America about 1834, and we saw no more of them. Mr. Ruggles had done good service as a teacher and preacher for fourteen years. Their places were taken by Mr. and Mrs. Cochran Forbes, four of whose grandchildren now reside in Honolulu. Mr. Forbes was a forceful and zealous missionary. There are memories of pleasant visits with them also, both at Kuapehu and at Kailua. On one occasion a fast day is remembered, such as we observed at Kailua four times a year by omitting the noon meal. The Forbes were more rigid, and no breakfast was served. Discovering this, Mrs. Bishop made for the safe, and seizing some cold chicken and taro, enabled her hungry family to break their fast. She was always to be relied on in the commissariat.

VISIT TO WAIMEA IN 1832.

We once extended our visiting to the inland elevated station of Waimea, in the beginning of 1832, Mr. Bishop being delegated to initiate Rev. Dwight Baldwin, M. D., in his new field. We traveled to Kawaihae by canoe, meeting the Baldwins at the house of Mr. John Young, the aged lieutenant of Kamehameha. The ladies and children were carried up the hill for ten miles by natives in manes. I particularly recollect the feeble appearance of Mrs. Baldwin with her young babe as her bearers passed us on the road. In due time we reached the Waimea plateau, at that time covered with dense scrub forest for some miles west of the mission station. We found two good-sized cottages, of which each family took possession. There must have been some hardship from lack of crockery and furniture. We had an old iron stove which helped keep us warm in the cold, rainy mountain winter. There was also a large fire occasionally lighted in the center of the main room, whence the smoke must have escaped through the roof. I think we children quite enjoyed the novel experiences. The Baldwins, being new-comers, must have found it very hard. On one occasion the two missionaries were absent for several days on a visit to the people of Kohala. That must have been a dreary time for the young wife.

RECOLLECTIONS OF WAIMEA AND OF MR. LYONS.

For the Bishops, the coolness brought recuperation and health after the heat of Kailua. On one morning we were told that "frost" had been seen on the grass just before sunrise. With snow mantling Mauna Kea nearly to its base on the Waimea plain as it sometimes did, a strong southerly breeze might have chilled our locality to that degree. We burned a good deal of wood, mostly the yellow ahakea, or "false sandalwood," which emitted a pleasant odor. Our altitude was nearly 2700 feet. Several rounded, green hills lay to the north of us, which must have been tuff-cones, the relics of former explosive eruptions.

We made another visit to Waimea in 1836, shortly before removing to Oahu. The Rev. Lorenzo Lyons was then occupying the station, having been there over three years. The infant Curtis was running about the house. This was a building of thatch, but with a foreign style of frame, with four rooms.

JOHN YOUNG AND HIS FAMILY.

On the route, at Kawaihae, we had again enjoyed the hospitality of the aged Mr. Young, who is very bald. I remember several fine-looking young women, his daughters. A coffin was suspended under the ridge of the house. It was the old chief's habit, whenever he went to Honolulu, to provide himself with a new coffin, in order to be so far in readiness for the change which was approaching. I trust that he was otherwise not unprepared. A still conspicuous object at Kawaihae was the great Heiau of Puukohala, built by Kamehameha in 1791, and consecrated to his war-god by the sacrifice therein of the corpse of his rival, Keoua. John Young had been captured in 1790. Vancouver first came two years later, forty years before my first sight of those arid hills and the mighty Mauna Kea behind them.

A SOJOURN WITH THE LYONS.

This second visit was made en route to Hilo and the volcano, via the mountain road to Laupahoehoe. The lady and children were provided with manes, or litters, borne by natives, who were paid in trade and food. We had gone a few miles, when by an accident the writer's arm sustained compound fracture, which caused a return to Mr. Lyons's house and further burden of four weeks upon their extremely cordial hospitality. There were hardly any children's books, but I devoured a considerable part of Rollins' Ancient History while the bone was knitting, and formed a strong attachment for both Mr. and Mrs. Lyons, who were most amiable as well as devoted and capable missionaries. Mrs. Lyons died at Honolulu in the summer of 1837, amid the profound grief of the assembled missionaries.

CAMPING ON MAUNA KEA.

Starting again, we camped for the night on a splendid slope of Mauna Kea, amid lovely koa glades, and groups of wild cattle. A long open hut was constructed for our large party, in front of which an immense fire was built for warmth. Fresh beef had been procured from the Paniolos, and abundant steaks were broiled on the coals. It was a delightful experience. From Laupahoehoe,

then a populous village, we proceeded by water in a double canoe, in which we were caught in a slight squall midway under the high palis, and the sail carried away, to the terror of the lady passenger and the children.

AT HILO AND THE VOLCANO IN 1836.

At beautiful Hilo we were entertained for a week by Mr. and Mrs. Coan, the Lyman's contributing thereto. Another week was spent in going to Kilauea, where we passed two night in a rain-storm in a leaky shanty, which our natives had imperfectly patched up. Before light on the third day we were awaked, and from the brink of the descent watched the brilliant fires below. At daylight we descended to the "black ledge," on which we went out half a mile, and looked down into an immense elongated chasm where seemed to be great activity. The features of the volcano I at once recognized as those familiar in Ellis' picture made twelve years earlier. Those features had mostly become obliterated at my next visit in 1857. The crater had then much filled up, and the fires had been transferred over a mile south to Halemaumau.

We were off for Hilo before noon. Most of the road between Kilauea and Olaa had been handsomely corduroyed over the Pahoe-hoe with the trunks of tree ferns, which made progress rapid down hill. The then large population caused much travel between Hilo and Kau. We had set our faces homeward, taking the Hamakua coast and Waipio valley on our route. The strongest impression on the juvenile mind was that of the ocean viewed from the lofty pali, and the mighty walls of the great valley, with its immense waterfall.

MISSIONARY VISITS TO KAILUA.

Some mention should be interesting of memories of visits at Kailua from various missionaries. Such visits were always delightful to us. Yet the ladies and sometimes the children were apt to be landed from their schooners in sad plight, after the hardships of the voyage. I remember two fair young women being brought in in fainting condition in the litters which they had occupied on the deck of the vessel. These were Mrs. Dr. Chapin and Mrs. Ephraim Spaulding. The Spauldings made us a long visit, during which I formed an intense childish attachment to Mr. Spaulding, who was a sweet and devout man. An earlier visit is recalled made by the Bingham family about 1833. Most of their time was spent on the upland above us. Mrs. Bingham was much of an invalid. Father Bingham was a somewhat stately, courteous gentleman, for whom I had much liking and a little fear. The Baldwins repeatedly visited us from Waimea. Dr. Baldwin we all liked. He was personally active, even breaking into a run, something rarely seen in grown men in Kailua. My childish impressions of all these friends was wholly favorable, accompanied by the utmost reverence for their spirituality and devoutness.

VIVID MEMORIES OF AN EX-QUEEN.

Very prominent in these recollections, is an aged native lady named Keku-puohē. She must have been about 75 years of age and still vigorous. She lived about half way from our house to the church, in premises of a superior sort,

befitting her rank. She had been a youthful wife of the elderly King Kalani-opuu, or Terreoboo as Captain Cook called him. She was by her royal husband's side, when Captain Cook was trying to lead him to his boat, and saw the great navigator slain. Kekupuohe had a strong but rather pleasant face covered with fine wrinkles, of lighter complexion than most of the people. Her short, thick white hair bristled densely around her forehead, so as vividly to appear in my memory today. She had a husband of inferior rank, a large fat man much her junior, of whom I remember chiefly his remarkable skill in expectorating, making shots with great accuracy at some yards distance through the door. The old lady, being royal, guarded herself from sorcery by the use of a spittoon.

THE NATIVE VERSION OF COOK'S DEATH.

Being ignorant of the language, I heard nothing directly of her story. My father often spoke of the circumstances of Cook's death, as he had gathered them from many different eye witnesses. Their testimony all concurred in imputing it to a momentary rage provoked by Cook's extreme violence and injustice. They had universally believed him to be an incarnation of the great god Lono, had dedicated to him their best heiau, and had there offered to him solemn sacrifices of baked pigs, which he seemed to understand and accept. But they had become much incensed by his removing the palisades of the sacred heiau to his ship for firewood. A boat had consequently been stolen from his ship and broken up. Cook, greatly enraged, embargoed the bay with patrol boats, and attempted to seize the king and hold him as a hostage. Just as he was leading the king towards the boat, the news arrived that a high chief had been shot while crossing the bay. The frenzied people immediately slew the great Discoverer, who was really the victim of his own madness.

RECOLLECTIONS OF SOME OF THE CHIEFS.

Another prominent native was Naihe, the husband of Kapiolani, who lived at Kaawaloa. Like Kuakini, and Hopu, he always appeared in our presence, in pants and a jacket.

Naihe appears in Hawaiian history as an orator, and spokesman for the king and chiefs. I never knew of him in that capacity. He was a rather aged man of spare form and ordinary height, and of considerable quiet dignity. Kona district was the residence of quite a number of chiefs of inferior rank, who were supported by the labor of their many serfs from the produce of the rich uplands. Occasionally a chair or a camphor trunk might be seen in the nice thatched cottages of such natives of rank, besides the mats, tapas, calabashes, and wooden bowls and trays which constituted their furniture. Cloth of any kind was scarce. Kuakini was disposed to monopolize such trade as came from occasional whalers touching at Kaawaloa. He possessed large quantities of foreign goods stored up in his warehouses, while his people went naked. I often heard my father tell of once seeing one of Kuakini's large double canoes loaded deep with bales of broad cloths and Chinese silks and satins which had become damaged by long storage. They were carried out and dumped into the ocean. Probably they had been purchased by the stalwart Governor with the sandalwood which, in the twenties was such a mine of wealth to the chiefs, but soon became extirpated.

KUKUI NUT AND STONE LAMPS.

My recollection is that very few of the people in those early days possessed any other form of lamp than kukui kernels strung upon the stiff cocoanut mid-ribs so as to form candles about twenty inches long. These were held in the hand, and nut after nut successively knocked off as it became burned out. I remember at our night embarkations in the Governor's canoes near his house, that we were lighted by torches made up of five or six kukui candles wrapped together in lauhala leaves, and burning with a great flare and smoke. On our journey in the interior of Hawaii, we encountered stone lamps which were merely a small hollowed stone containing some kind of grease in which lay a wick of twisted tapa.

HOW FIRE WAS OBTAINED.

The people commonly procured fire by friction of wood, although some of them had old files, from which they elicited sparks by strokes from a gun-flint. It was common to carry fire in a slow-burning tapa-match, especially when they wanted to smoke. I first saw fire obtained from wood at our camp on Mauna Kea. A long dry stick of soft hau or linden wood was used. A small stiff splinter of very hard wood was held in the right hand, and the point rubbed with great force and swiftness in a deep groove formed in the soft wood by the friction. A brown powder soon appeared in the end of the groove, began to smoke and ignited. This was deftly caught into a little nest of dry fibre and gently blown into a flame, which soon grew into an immense camp-fire.

STONE AND STEEL TOOLS.

Iron implements were not very abundant at that time among the people, although the neolithic age of polished stone cutting implements had ended soon after Cook had bought "fathom" hogs for a knife apiece made of hoop-iron. Large numbers of the natives owned little adzes formed of a bent steel plane-iron tightly lashed to a hard-wood handle composed of a small branch with a piece of the tree-stem attached to it. With these sharp edged adzes they would deftly dub away and carve out almost any desired smoothing of timber. Another common iron implement was the o-o, or dagger. The ancient form of o-o, then still in common use was a long stick of hardwood with a flattened point, held paddle-fashioned by the squatting laborer, who would rapidly clean the ground of weeds and break up the soil two or three inches deep. The iron o-o was a great improvement, being a thin oval blade-point with a socket into which the long handle was inserted. Even this was far behind the hoe, with which penetrating blows could be struck, notwithstanding Edwin Markham's melancholy's lament. The "Man with the Hoe" had many centuries' advantage over the kanaka with the oh-oh-, especially the wooden one. But a Hawaiian preferred to dig on his haunches.

AN ANTI-MISSIONARY FOREIGNER.

There was a white blacksmith named Rice located in Kailua, who must have done a considerable business in hammering out o-os and bending plane-irons

for the natives. Mr. Rice was, like nearly all the non-missionary whites of those days, of irregular habits, and naturally hostile to the missionaries, whose efforts tendered to restrict immoralities. Poor Rice suffered in his own family. I remember to have heard, without understanding, what it meant that Rice had a terrible time in the elopement of his young half-white daughter. He vainly searched for her on the premises of a white trader, who, as he soon after learned, had her headed up inside of a cask in his shed. Such an escapade, however, in those days carried with it no loss of character to a damsel in any native community. Her only inconvenience would be the flogging her irate white parent administered. We were all greatly pleased to hear not long after we left Kailua that Mr. Rice had become converted and an earnest Christian under the ministrations of Father Thurston, who had himself, like Dr. Lyman Beecher, been a blacksmith. Doubtless the anvil is as favorable to breeding missionaries as was the saw and plane in Nazareth, or the net at Bathsaida.

NATIVE FISHING METHODS.

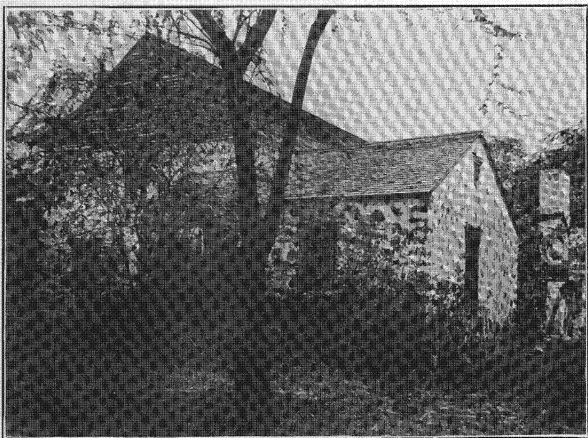
The natives by the way wove admirable nets from the splendid olona fibre, which they stained dark brown with kukui juice. The sinkers were pebbles, the floats of wiliwili wood. Much fishing was accomplished with both seine and hook. The ancient bone hooks had disappeared. Steel fish hooks were a leading article of trade. The fishermen very commonly preferred a peculiar form of hook which they filed out themselves from large needles; it was without barb, the point being bent to one side and curving inward. The fisherman's craft was one of great skill and special knowledge. Canoes of all sizes were constantly seen on the sea, often going out to great distances on the usually smooth ocean that vast blue Pacific.

CHARGES AGAINST THE MISSIONARIES.

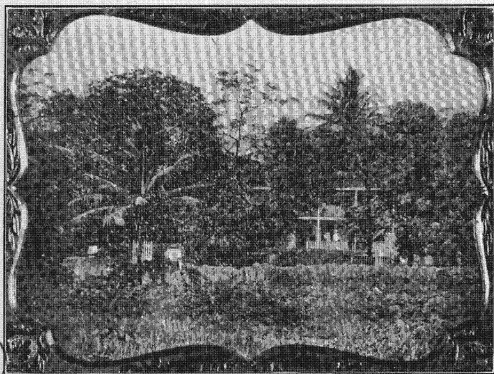
That Kailua storekeeper needs further notice. He was agent for a leading merchant at Honolulu. When my father was building his house, he used to give his workmen written orders on the trader for goods. Many orders read, "Please give so and so five (more or less) glasses." These "glasses" were miserable little shaving mirrors which distorted the features, sold at 25 cents each. In the following year 1832, came back from Boston the grave inquiry what meant this charge against Mr. Bishop of trading with the natives in liquor, as verified by these written orders for "glasses," which the Kailua trader had forwarded as evidence along with other accumulations of equally strong testimony to missionary hypocrisy, which a Honolulu syndicate caused to be published in Boston!

NO CONSCIENCES WEST OF CAPE HORN.

Missionaries were far more obnoxious in those days than "missionaries' sons" are now, being even better people than the latter, and their white opponents a rather hard set. Nearly every half-white youth of early days in Hawaii was brought up in an atmosphere pervaded with the most violent vilification of missionaries, and these continual calumnies were a frequent theme of



THE OLD MISSION HOUSE AT KAILUA, BUILT BY REV. A. BISHOP IN 1831, THE HOME OF S. E. BISHOP UNTIL 1836.



THE OLD MISSION HOUSE AT LAHAINA. HOME OF S. E. BISHOP FROM 1853 TO 1862. (From a Daguerreotype.)

discussion in the missionary homes. A newspaper in Honolulu called the "Sandwich Island Gazette," teemed with absurd charges and misconstructions of all kinds, which I used to read with much juvenile indignation. It was certainly a great hardship for those poor fellows who had comfortably "hung up their consciences at Cape Horn," and were living in serene satisfaction after the heathen ethical code, to have these perverse missionaries pick their consciences off from the Horn, bring them along to Hawaii, wind them up and set them running. One may forgive "the boys" for displaying some resentment at being caused to feel what sinners they were making of themselves among the kanakas. The two elements could not come into contact without much noisy efferecence.

Money in those days was hardly a medium of exchange among the natives, most of whom were not familiar with the appearance of coin.

What coin was in circulation was entirely Spanish, in dollars, quarters and reals, all probably coined in Spanish America. In my boyhood I never saw a British or United States coin of any sort. Gold was not at all in circulation. I did see once or twice a Spanish doubloon. Our purchases from the natives were paid for usually with school books and slates, but sometimes with a few yards of blue or white cotton cloth, or with fish-hooks or horn combs. Labor was hired in the same way.

POVERTY OF THE COMMON PEOPLE.

Up to 1839 on Oahu, the regular wage of ordinary labor was one real or \$0.125 a day, usually paid by orders on a store. There was great poverty, although provident natives in good seasons generally had plenty to eat. But and one who had a good supply of food, would at once be visited and lived upon by all his kindred. Thus all thrift and saving was discouraged and unknown. The only way to prosper was to be a chief with a good tract of land and a body of retainers or serfs. Nearly all except the chiefish ones were serfs cultivating small allotments, held subject to the will of their masters. The masters were not commonly severe, yet there was much cruel oppression, and little sense of human rights.

AGRICULTURAL CONDITIONS.

Recurring to the use of agricultural implements, I never in early boyhood saw a plow a scythe, or a sickle, and I think, not a spade or shovel. My impression is that although the soil of Kona is exceedingly fertile, no plowing is possible on account of rocks. Most of the lava streams which entirely covered the land were of the a-a, or clinker variety. Holes would be made with an o-o into these rough, brittle stone-heaps and a slip of sweet potato vine inserted, which would grow luxuriantly. Much of the lava had undergone sufficient decay to form patches of very rich soil in which taro, sugar-cane, and bananas grew luxuriantly. There were many breadfruit trees on the upland, although their fruit did not constitute any large part of the people's food. We had no wheeled vehicles, not even a wheel-barrow. During our last year at Kailua a black pony came and was used by the two mission families. The two clergymen rode it in turn on their short trips to preaching stations, and the ladies jogged along occasionally on a side saddle. None of the natives in those days had horses, except

the princely class of chiefs, and they were generally carried on large litters by scores of human bearers.

CUSTOMS OF THE CHIEFS.

Objects much in evidence among the natives, when visiting or at meetings as well as in their homes were their fans, and their fly-brushes or kahilis. The fans were made from the ends of young cocoanut leaves. The broad end being elastic, threw the air far more efficiently than the stiff fans now commonly braided. Get an old-fashioned native fan for comfortable use. Small fly-brushes were used by all the people. They were about four feet long, the upper half of the stick having the tail feathers of fowls tied on. The kahilis of the chiefs were larger and more elaborate. The long handles were often beautifully encased with tubes and rings of human bone and whale-tooth, also turtle shell, all finely polished. A high chief always had two or more attendants armed with such fly-brushes. These chiefs were often unceremonious in their visits. At some early date, before my birth, my mother's little sitting room was once invaded by a bevy of ladies led by a royal dame, all fresh from their sea-bath, and in nature's array. They brought their garments with them, and proceeded to dress while they chatted and paid the compliments of the day. Those were the good old times.

STYLES OF MISSIONARY CLOTHING.

Our parents were simply clothed in garments of light material, black being mostly reserved for Sunday. I think their cheaper garments were nearly all cut and sewed by their wives, and could not have been very stylish. They very commonly appeared in the old-fashioned short jacket. I never saw a frock-coat at Kailua, only the claw-hammer. I was at one time, about 1835, much impressed with the unbecoming appearance of some grey cotton coats of the latter denomination which the two missionaries wore for some time. The waists were very short and the claw hammers extremely scant.

These coats with vests to correspond came from an assortment of ready made slops sent out by the treasurer of the American Board to our fiscal agent, who worked them off on the poor missionaries. Mr. Chamberlain's own comment upon these goods was, that "much of this clothing did not appear to be adapted to the human form." It had probably been supplied in Boston by some thrifty contractor, and passed without due inspection.

DAILY LIFE OF A LADY MISSIONARY.

Mrs. Bishop was an extremely active and efficient lady. Rising at four a. m., accomplishing all domestic duties and schooling her children before nine o'clock, she went at that hour into a school adjoining our premises, and taught the native children for six solid hours, occasionally running into the house to see that all was straight. She had a native male teacher as assistant. Her husband's school work was mainly superintendence of other schools in the town and outside. A considerable part of his time was occupied in Bible translation, in which he was aided by Gov. Kuakini and other leading natives, as "pundits," or experts in

their own tongue. Mrs. Bishop pretty thoroughly wore herself out by her energetic labors, which caused our removal in 1836 to the cooler climate of Ewa, Oahu, with its refreshing trade winds. The trades never reached Kailua. Those cool breezes banked up against Mauna Kea and Mauna Loa with the lofty upland between them. Sometimes a trade wind of extra force would tear over the uplands north of Hualalai, and was called a "Mumuku," but that big mountain effectually sheltered Kailua from such rushing gales. We knew only the land and sea breezes, with an occasional Kona or westerly storm in the winter, attended by a heavy rain.

"GENERAL MEETINGS" OF THE MISSION.

Very prominent in the old mission life were our annual visits to Honolulu in attendance upon what was called the "General Meeting." That was an annual assembling at the capital of all the missionary families, occupying from four to six weeks. The hospitality of the missionaries residing at Honolulu was severely taxed in entertaining their rural associates. Many of the latter families secured native cottages and kept house in them. Our experiences at these times were varied and noteworthy. Especially so were the voyages to Honolulu and return. In these days of rapid transit from port to port in large and comfortable steamers, no idea can be gained of the wretched miseries of those early and protracted voyages in small schooners. As a child's experiences I recall them as among the severest physical sufferings of a fairly comfortable life. They must have been much worse to the lady missionaries.

INTER-ISLAND TRANSPORTATION.

As the time of General Meeting approached, Mr. Chamberlain would charter such coasting vessels as were available to convey the missionaries from the different ports. Nearly all those vessels were small, varying from thirty to fifty tons, schooners or brigs. They were mostly owned by the kings or chiefs, and commanded by white or native skippers and mates. They were usually in very filthy condition, swarming with cockroaches and reeking of bilge water. We white passengers generally occupied the decks, on which our mattresses were spread, but had to dispute our scant space with a swarming crowd of natives, with their calabashes and dogs. The cabins were extremely narrow, and intolerable for stench. I have made a two-days' passage on one of the larger of these vessels when the crowd of sitting natives was so dense that the sailors could pass along the ship only by walking on the gunwales of the bulwarks. And many of these people were constantly smoking the very coarse tobacco of their own raising.

THE TRIP TO LAHAINA.

Added to these discomforts was the usually violent seasickness which the former aggravated. Sometimes the winds would favor, and the passage be comparatively short, only two or three days. Usually there would be calms and adverse winds, and our miseries would be protracted for a week, more or less. The native skippers would be indifferent to making progress, and the helmsman would fall asleep at his tiller, so that the morning would find us farther from

our destination than the night before. In those days it was never supposed that a vessel could beat up the Molokai channel to Lahaina. That passage was always made around Lanai, occupying an average of three days. A good part of two days and nights would be spent in getting past the great bluff at the southwest point of Lanai. That dark bluff is a very familiar and unpleasant memory of my boyhood. Our vessel would lose the light sea-breeze after, perhaps sighting Lahaina, when the prevailing current would gently sweep us back under the frowning bluff, to linger out another twenty-four hours. It was tiresome, with a broiling sun roasting us on the unsheltered deck, where we lay faint with nausea.

A PESTHOLE CABIN.

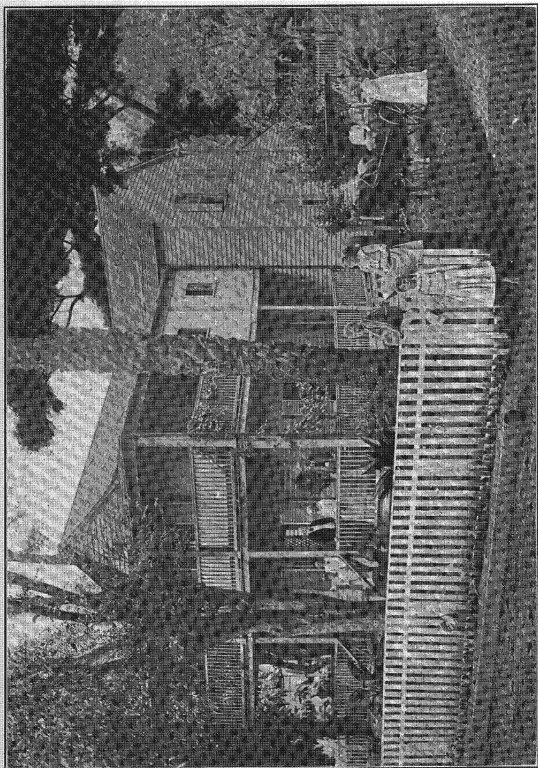
Once I remember a drenching rain coming suddenly upon us when all the passengers hastily tumbled down into the noisome cabin. The floor space of this pest-hole was about eight feet by six, with a berth on each side. These spaces were filled by the adults, and we children were distributed among them. I remember lying uneasily across the limbs of Mrs. Thurston, who counseled resignation, as she practiced. On this passage, probably in 1834, I think that we did not call at Lahaina, but passed outside of Kahoolawe on to Kailua. Generally, there was another delay in working up to Kailua, with a strong, adverse current thwarting us between the light land-breeze of night, and sea-breeze of day. The meetings were in May, so that we generally escaped all violent winds, and seldom shipped a sea. But the swell was commonly high, and the motion of the little craft most uneasy.

CHIEFLY ETIQUETTE.

I remember at one embarkation at Kailua observing the great strength shown by Mr. Thurston as he tossed mattresses up from the boat to the deck. These fathers with their sick wives and children, had no time to indulge themselves in feeling ill. Among our native passengers on one occasion was a little child of high rank, attended by a comely maid of perhaps thirteen. The child ordered a drink of water which the maid brought in the slender tin cylinder used to dip the water through the bunghole of the cask. The child imperiously resented such a container. The maid then distended her own cheeks with the water, and applying her lips to the child's mouth transferred the contents to the latter. This was received with entire satisfaction. Doubtless, her little highness was used to drink in no other way, when so luxurious a beaker was available.

INTER-ISLAND LIFE AT SEA.

I do not think that the natives suffered from seasickness like the whites. Probably their habit of frequently going out in canoes, and perhaps their daily tossing on the waves in bathing, made them insensible to the unrelenting swing of the vessel. They seemed to enjoy themselves on the crowded deck, chatting, eating and smoking their horrible tobacco. To us the odors were distressing. To me, especially, the smell of tar became so identified with nausea and bilge



RESIDENCE ON SCHOOL STREET, HONOLULU, BUILT BY REV. A. BISHOP IN 1856, AND OCCUPIED BY S. E. BISHOP FROM 1877 TO 1902. THIS SITE WAS SELECTED PARTLY ON ACCOUNT OF THE "FINE VIEW", IT THEN HAD OF THE HARBOR. THIS VIEW IS NOW ENTIRELY OBSCURED BY TREES.

water, that in sitting in the Bethel under Chaplain Diell's preaching, the savor of tar from the neighboring ship yard would always produce nausea. Only a long voyage around Cape Horn weaned me of that peculiar aversion to tar, and made its odor not unwelcome. But bilge water I never came to like, especially that of a sugar-carrier.

THE DELIGHTS OF LAHAINA.

We took some interest in the land scenery of the voyage, especially in the easier descent towards Honolulu, with and not against the trades. On one night when well outside of Kailua, we were awakened to observe a strong red light over the summit of Mauna Loa, a reflection on the sky from some glowing lake or fountain in Mokuaweoweo. In crossing Hawaii Channel, the broken chasms of lofty Haleakala seemed wonderful in contrast with our smooth dome of Hualalai. Once we swept rapidly past little black Molokini, and soon raised the strange succession of mountain pyramids along West Maui, landing quickly at Lahaina with its rich groves of breadfruit and cocoanuts. Lahaina always brought us warm hospitality from the family of Rev. W. Richards, who was fellow-passenger with my father around Cape Horn in 1823. Many things combined to make Lahaina a delightful stopping place. One was the prevailing greenness in contrast with the aridity and black lavas of Kailua. Another was the noble grape vines hanging around the substantial stone mission house. These would be loaded with ripe fruit. Maternal prohibitions failed to keep our craving fingers from the rich clusters.

REMINISCENCES OF THE RICHARDS.

But the most interesting thing at that house were some of its inmates. There were three cheerful boys of the age of myself and Asa Thurston, named William, Charles and James, with whom we had glorious times. There was one memorable night when we five boys were all in one bed, and talked to a late hour. It was there that I was introduced to my first absorbing knowledge of real juvenile stories, in the Youths' Companion of sixty-five years ago. I still take that paper, and quarrel with my grand-daughters for the first reading of it. The seven children of that delightful Richards' house long ago joined their parents in the better land, except the oldest daughter, now residing in a Boston suburb. William died young as a missionary in China. Father Richards was a very influential missionary, and left a strong mark upon the political and educational systems of Hawaii before his premature death in 1847. He built the first stone mission house in the Islands, a very commodious one, in which all my children were afterwards born.

THE FIRST STONE CHURCH.

Mr. Richards also, in conjunction with the notable Governor Hoapili, built the first stone church in the Islands in 1831. It was a very substantial and commodious structure, which I remember attending before the rough masonry had received any coat of plaster. The new galleries were crowded with people. We walked to church through the cocoanut grove north of the edifice. The trees

were then young, and I wondered at the nearness of the great fronds and the clusters of nuts to the ground, being used only to the more ancient and lofty trees of Kailua. These Hoapili trees, in their turn, are now aged. As we decorously walked, the three Richards boys solemnly marched abreast in front of us. There were no other missionaries in Lahaina, except Miss Ogden, a nobly good woman, whose motherly aid greatly supported the rather feeble Mrs. Richards. Mr. Spalding and Dr. Chapin came there in 1832, a little later. Probably Rev. Lorrin Andrews had just started the Seminary at Lahainaluna, of which I had charge forty years later.

REMINISCENCES OF KALAKUA.

We heard much of Hoapili-wahine, or Kalakua, but I do not remember to have seen her. She was of royal birth, and a wife of Kamehameha, to whom she bore Kinau, the mother of Kamehameha IV and Kamehameha V. She was a firm and devoted Christian, and earnestly sought to suppress the moral disorders of that seaport. She and Mr. Richards leaned much upon each other. I have heard that on one occasion the missionary sought to relieve the old queen by bleeding, but was unable to find the vein in the mass of fat enclosing it. On another occasion, he asked her why she did not plant cocoanuts upon an unoccupied tract at the north end of the town. She wanted to know of what use they would ever be to her at her age. "But where will be the nius of your grandson, Lot?" (Kamehameha V). The old lady instantly dispatched her schooner to Puna for a cargo of the nuts, which became the immense grove now bounding Lahaina on the north.

LIFE IN OLD HONOLULU.

We usually, after a day or two in hospitable Lahaina, made the remaining run to Honolulu in a night, or little more, with the fresh trades behind us. This town was not then an attractive place. By May or June there was much heat and dust, and no verdure in sight. The small mission herd had thoroughly depastured the plain which extended unbroken by house or tree to Punahou, while brown Punchbowl with its dry slopes frowned darkly above. Mr. Chamberlain's great oxen stalked slowly about with skinny ribs and projecting hip bones. There are still two buildings standing of that old mission colony. One is the ancient Bingham home, which was transported around the Horn in 1821. The other is the stone Chamberlain house, still retaining its antique little windows, and surrounded by the same coral walls. The garret of this was the "Depository," where were a variety of goods for the needs of the missionaries. Mr. Chamberlain was an extremely busy and rather precise person, yet cordial and agreeable, and admirably fitted to his position. Having often to arbitrate between contending claims of the sisters to the scanty supplies of necessary goods, he encountered some grumbling, but bore it patiently, although sometimes thought to be rather arbitrary. I recall one complaint that he allowed two barrels of flour a year to each of the Honolulu families, while the rest of us got only one. It seemed, on the whole, however, that he was justified by the fact that the former households had to entertain much more company. At one

house, the printer Sheppard's, where we took tea, when we got home it was remarked as a waste of precious flour, that hot short cake was the chief food served. I have had a weakness for that viand ever since.

HONOLULU "A HARD OLD CAMP."

These reminiscences seem to have got away from Kailua to Honolulu. They seem likely to continue in that inviting field. Honolulu was a hard-looking old camp in those days. A drawing of it in the early thirties, afterwards engraved at Lahainaluna, is to be seen in the Honolulu Reading Room. It gives some notion of the facts. Most of the dwellings were native thatched cottages, chiefly pili-grass. They were irregularly scattered in enclosures of rotten adobe walls. One main street, now King street, of good width, extended from the present corners of South and Bethel streets. Quite a lane followed the course of Merchant street. Fort and Nuuanu streets had no existence. There was a lane up Punchbowl to Beretania, and along Beretania to Union. A number of other narrow lanes ran here and there. There were irregular fragments of street near the waterfront from Fort to Nuuanu, where were three or four stores of traders, mostly stone or adobe structures of one story.

DREARY, UNCOMFORTABLE AND UNSANITARY.

There were scarcely any trees in the town. A few hau trees were in some premises. About 1836, Pride of India appeared. Occasionally cocoanuts and pandanus were seen. The only drinking water was drawn from the shallow wells dug through the coral to tide level. Being slightly brackish, it was distasteful to us, who were used to mountain water. Probably it was rather insani-tary. The mission dooryards were nearly devoid of vegetation, the manienie, or Bermuda grass, not having become common. Nothing could be less attractive than the general aspect of the town, of which its present inhabitants can form little idea. Of foreign-built houses there were few in 1832, when my definite memory begins. The King lived chiefly at Lahaina, but had a house on the Fort-wall here, and perhaps near the present Capitol. Near the south corner of that enclosure was a fairly good stone house occupied by Auhea, or Kekauluohi, the mother of the late King Lunailo. A dwelling-house of some importance was that of the British Consul, Richard Charlton, later occupied by his successor, General Miller, which stood there for seventy years, adjacent to the ex-queen's premises.

CHARLTON—A BETE NOIR TO DECENT PEOPLE.

This Charlton was a conspicuous person, a beefy, red-faced Britisher, loud and aggressive. He made himself much feared and hated by nearly all classes of the population. His actions are largely set forth in the histories of Bingham and Jarves. I well remember him, having repeatedly gone with my mother in her calls upon Mrs. Charlton and her sister, Mrs. Taylor, who were very estimable English ladies. In the presence of the ladies Mr. Charlton laid aside his violent deportment and aggressive language. He was notorious as a reckless falsifier of truth. He was a man of loose life and a free drinker. There was probably

no white man here more obnoxious to the missionaries or to the chiefs, and few persons more disreputable in public and private life. Charlton was bete noir to all decent or quiet people in Honolulu.

CHURCH SERVICES IN 1838.

Up to 1838 there was only one church edifice in Honolulu except the Seamen's Bethel, which was built in 1834 or 1835. The immense thatched native church was conspicuous at Kawaiahao, standing seaward of the present building, and at right angles to it. It was certainly very large. I have some very definite memories of church attendance there, sitting centrally near the high pulpit, where Father Bingham presided in much dignity. He was animated and impressive in address, and manifestly of weightiest authority with his congregation. But his sermons were much protracted, and many of the natives fell asleep. The audiences were large, and nearly filled the great length of the building. The pulpit was in the center of the Waikiki side, near by were two or three old-fashioned high pews, occupied by royal chiefs, and a few settees in front. The body of the people sat on mats on the ground.

INHARMONIOUS SINGING.

Well in front was quite a company of singers, led by Dr. and Mrs. Judd, among whom were several large and fleshy women. I remember thinking that their voices were inharmonious, and much given to improper slurring of the notes. The people were dressed much like those already described at Kailua, and with little, if any, more array of clothing. I have less recollection of individual chiefs there than of those at Kailua. I recall having once been conducted to the famous Regent Kaahumanu, at her house. She was sitting in a large chair, on a dais, probably a state occasion, and seemed like a great personage. Probably not many weeks later, I well remember seeing her on her deathbed in Manoa Valley. It was night. She lay in a dying state on a high pile of mats, in a thatched house, with many people around her. She passed away that evening, which the record gives as June 5, 1832.

A MISSION REINFORCEMENT.

I was then five years old, and retain a number of particulars vividly stamped on memory. One of these was in the Bingham's parlor, at a reception of the "new missionaries," just arrived by the Avrick, from Boston. Among those young recruits, I especially recall the marked features of the Rev. W. P. Alexander, who was sitting on the Ewa side of the inner door of the parlor. Among the newcomers were the Lymans, Armstrongs, Hitchcocks, Forbeses, Emersons and others, since prominent in Hawaiian annals. The long years have lapsed, and their grandchildren have come to the front, with many of their little ones, a fourth generation, around them. That was a reinforcement to the mission of exceptional strength, both in mental ability and evangelistic fervor. Through several of those young men, the powerful revival work of Charles G. Finney began to spread its high spiritual kindling in the toiling workers in Hawaii. They gladly responded to that quickening breath which cheered and inspired them to fresh and apostolic fervor.

The earliest memory whose date I can give is that of a visit with my father to the United States sloop Vincennes, in November, 1829, when I was two and a half years old. Rev. Charles Stewart was the ship's chaplain. The memory is that of a fearful being at the door of the captain's cabin, an armed sentry; and of Messrs. Stewart, Bishop and Captain Finch, seated near a large round table laughingly soothing the terrified child. Stewart's books are the most instructive records of Hawaii in the twenties.

DESTRUCTION OF KOU TREES.

Before transferring the locality of these reminiscences from Hawaii to Oahu, a number of incidents and items have suggested themselves to be added. Among these are the various forms of vegetation in our rather barren yards at Kailua. There were two or three young kou trees, perhaps ten or fifteen feet high which we children would climb. The bright orange-hued flowers held a trace of honey, and their rather fleshy texture was not unpalatable to chew. The large, glossy cordate leaves formed a thick and beautiful foliage. The small nuts contained sweet kernels which repaid some effort to extract by pounding between stones. The kou used to be the most beautiful tree in the Hawaiian Islands, as well as supplying the choicest of ornamental wood. Lahaina was once fringed with these massive spreading trees. One of the finest was in the yard of Mr. Richards, on whose great low boughs we boys loved to climb. About 1860, a minute insect called "red spider" came to infest the under-side of the leaves to such an extent as in the course of a year to destroy every kou tree, not only in Lahaina, but throughout the group. The timber of the dead trees was cut and used for furniture, much being sent to Germany. The chiefs' great calabash bowls of kou are now rare and choice. Young trees of the species exist here and there. The trees have always succumbed to the insect pest before attaining any considerable size. Perhaps Professor Koebele might discover a lady bug antidote.

ABSENCE OF TREES AND FLOWERS.

Another climbable tree in our yard was a castor-oil of unusual size, which lasted four or five years. This *Palmo Christi* was a common weed in the group, although an imported plant. A number of papaya trees flourished and bore their melon-like fruit. Among the rocks were pockets of soil, through which certain trees and plants sent down deep roots so as to survive the long dry seasons. We had two healthy shrubs called "Pride of Barbadoes," whose rich plummy blossoms resemble those of *Poinciana Regia*, or "Flame Tree." Of other flowers, I remember none at our home. There were beautiful damask roses at Kuapehu. On reaching the Atlantic States in May, 1840, the variety and brilliance of the garden flowers was an endless marvel. Kona shore was never a land of flowers. Yellow ilimas were the brightest. Even now the imported flowers have hard struggle to thrive on Oahu except in high altitudes, where they do flourish wonderfully. Exceptions are the *lantana*, and the tropical *Poinciana* and *Bougainvillea*, with some luxuriant creepers, which often form great curtaining splendors.

Kailua was quite exempt from dust. Strong winds were rare, and the great stone heaps absorbed any loose earth that might be flying. On the lower and

dryer uplands, perhaps a mile distant, were a few clumps of lauhala. One of these, conspicuous in the distance from our back door, simulated in the twilight the shape of a lion, and was an object of childish uneasiness, despite the knowledge that it was only a tree. High on the mountain laid the great forest of tall trees, as they seemed to us, and below them the uplands checkered into patches enclosed in heavy walls or piles of rocks. In the distance to the south laid a long slope on which were many scattering trees. South Kona looked as if a fine, attractive region. I have never visited it except along the coast. Once in the evening I saw a huge meteor sweep past overhead and apparently plunge into those southern lands.

EARLY ASTRONOMY AND GEOLOGY.

We were taught a little astronomy, although in those days the nature of "shooting stars" and comets was unknown. The Thurston children repeatedly came down, and in the early evening we picked out on a globe and in the sky a number of constellations, and learned to know the larger planets and stars. At Honolulu we saw and studied a fine Orrey, with a full assortment of moons in lively revolution. Dr. Judd had there also a little electrical cylinder machine, from which Persis would bravely lead off in taking small shocks for the string of children holding hands. The connection of electricity and magnetism was then unknown. I believe the doctor had a Leyden jar. Of geology we never heard. The globe had been created in six ordinary days, and there was no mystery about it. Still we got a grounding in scientific ideas which opened the way for the broader modern outlook. We had some notion of the spacial immensity revealed by astronomy, but none of the immensity of time as now disclosed. Six thousand years was the limit of past earthly chronology.

NATIVE FRUITS AND VEGETABLES.

Speaking of mountain fruits, we children had met with wild strawberries on the high slopes of Mauna Kea, also with ohelos at Kilauea. My acquaintance with the akala or mountain raspberry came later. In 1867 seven or eight miles above Kailua, in the wet depth of the luxuriant forest, I came upon a giant cane of raspberries forty feet in length hanging through a tree-crotch. On the end hung a cluster of berries that occupied the space of nearly a bushel basket. I picked one raspberry which measured over seven inches in circumference. This fruit was of fine flavor, but absolutely devoid of sweetness. I fancy that the seeds of these berries had been at some time transported from the abounding berry fields of the American coast by migratory geese or other birds to whose feet or feathers they had become attached. Violets also have been found on the extreme summit of West Maui. In 1836 I saw a sumach thicket in remote Hamakua, which must have preceded Cook's discovery. Breadfruit, taro, bananas, sweet potatoes and sugar cane were doubtless imported by the early Hawaiian immigrants.

TAPA AND MAT MAKING.

Among the familiar objects of Kailua were the wide strips of white bark of "wauke" or paper mulberry, which were often spread out upon the black lava or

upon beds of pebbles in the process of preparation for pounding out into tapa cloth. Quantities of lauhala or pandanus leaves were also laid out in preparation for weaving into coarse mats. A locality much frequented by us was a rocky cove at the shore where we often bathed, wearing flannel gowns. After the bath we stepped a little inland to a house where the native women would empty over us, to wash out the salt, calabashes of brackish water from a little pool or well four or five feet down, a sort of cave in the lava. There was a variety of animal life in the small pools of the cove, and an occasional live shell. The beach sands abounded in damaged shells of no special beauty, but desired by children.

INTRODUCTION OF TOMATOES AND GUAVAS.

Among weeds on the shore, in the moister season, purslane abounded, also mustard. Pepper-grass and wild tomatoes appeared about 1835. Indigo was introduced into gardens on Oahu a little later, and in the course of fifteen years became a detested weed, nearly disappearing, however, after 1870. Guavas were choice garden fruits in the later thirties, not becoming wild until some twenty years later. Calling at the end of 1839 at Eimeo, near Tahiti, I wondered to see the hills overgrown by wild guavas. Our ship took on a supply of guava firewood, some of which went to the captain's lathe for "serimshawing," in which much sperm-whale jawbone and teeth were also consumed. This reminds me of a long walk over the black lava knobs north of Kailua, which we once took to a little sand beach where lay the vast rotting carcass of a whale, probably killed and lost by some whaler cruising in those waters. We used to look from the village off to those black points in the north where in storms enormous clouds of spray like great ships flew up from the angry attacks of the waves.

EARLY COWBOYS AND CATTLE.

While in those days horses were rarely seen in Kona, there were quite a number of those animals in use on Mauna Kea in catching wild cattle, by "Panio-los" or Spanish cowboys, with whom were also natives and half-Spaniards. These cowboys manufactured their own heavy Spanish saddles and bridles, with their lariats, all of cowhide, save the wooden saddle frame, and the cruel iron bits and spurs, made by some "armorer" or smith. The wild Mexican breed of cattle could be handled only with the merciless lasso, and the high-pommel saddle to enable the trained pony to lean back and keep up the strain on the noosed beeve or bipi. The Australian tame English breed of cattle required only the whip, and so the Australian saddle has no pommel. Horses were always called lio by the natives, probably a shortening of the Spanish "caballo" (calleo).

POSTAGE AND POSTAL METHODS.

My father wrote and received a good many letters. All were sealed with wafers or wax, envelopes being unknown. United States postage was twenty-five cents for every piece of paper, large or small. The proper folding of a letter sheet was quite an art, and the portions of the outer page which were turned inside would be carefully filled with writing. Stamps being unknown,

“Paid 25 Cents” would be written with a pen by the postmaster at the seaport. At one time several large volumes of an encyclopedia with many wonderful plates came from somewhere to engage our interest. Among the plates especially wonderful were some illustrating anatomy. That particular volume soon mysteriously disappeared, no doubt being deemed unadapted to the childish mind. But an enduring fascination in that subject was there created. Such is forbidden fruit!

YOUTHFUL GRIEVANCES AND RELIGIOUS LIFE.

We were not rich in toys. At a visit to Honolulu in 1835, we were enabled to see a considerable assortment of cheap toys sent out for the Mission children. We awaited the distribution with intense anxiety, our desires being especially fixed upon a Noah’s Ark with its inhabitants. How deep then was our chagrin and resentment when the Mater, with a view to utility, selected for us a diminutive iron skillet. I think that was one of the most serious grievances of my early life; but no remonstrance availed or was tolerated. That skillet became prominent in the domestic economy as a glue pot. Utility held much place in our education. I learned sewing with my sister, and became somewhat skilled with the needle, an art not wholly useless in later life. But I never learned to throw a ball straight—indeed never saw a ball game before reaching America.

Most prominent in our education was religious instruction, although for some reason we never made the slightest acquaintance with the Shorter Catechism. Indeed I doubt if either of our parents had ever learned that famous compend of doctrine, both having passed their childhood in the pioneer life of the Onondaga and Genesee frontiers. Family prayers came twice a day. The father was most sincere, devout, and impressive in petitions and discourse. We all read verses in turn. I began to take my turn soon after being four years old. Some “Practical Observations” always followed from Scott’s Commentary. The Bible became an exceedingly familiar book, both in its history and in its general system of doctrine as in those days interpreted. Indeed I have not very radically diverged in later life from those old conceptions of Divine truth. Singing was confined to our weekly prayer-meeting; but a considerable number of the “Village Hymns” were memorized in childhood, and have never been forgotten.

DIFFICULTY OF TEACHING ENGLISH.

The instruction of the natives was conducted exclusively in their own language. I remember only one child to whom my father taught English, and she was a grandchild of the Governor. Nearly every new missionary undertook to teach some English to the natives, but soon became satisfied of the futility of the effort. Foreign visitors very uniformly censured the missionaries for not so teaching the natives, and opening to them the wide treasures contained in the English language. It was simply impracticable. Even now after more than forty years of diligent teaching of English in the common and high schools, not one native in five so taught can read an ordinary English newspaper. Much success, however, has been secured in boarding schools, where the pupils are required to converse only in English. The language has gradually made itself at home in such schools, and new pupils fall into its use almost spontaneously.

A MISSIONARY ERROR.

I have long regarded the most serious error of the missionary work as pursued in these Islands as being the failure to begin by establishing, as fast as possible, training schools for the thorough civilizing and Christianizing of youth to become leaders of their people in all good things. We can see how much has been accomplished by such means in the Gilbert and Marshall Islands by a very small number of white missionaries located on Kusaie. Each trained native couple becomes a light to the people. Many of the older missionaries were deeply impressed with the importance of that line of work. But, unhappily, a theory prevailed in the Board of Missions in Boston that the true work of the missionary was to "preach the Gospel," and not to impart education beyond what was necessary to read and understand the Bible, except that a few native preachers and teachers should receive special training. The Rev. Dr. Rufus Anderson, whose influence was paramount, always frowned upon creating any such system of boarding schools as have gradually grown up here under American mission auspices during the past forty years. Mr. Edward Bailey and Miss Ogden established one girls' boarding school at Wailuku about 1840, but through Dr. Anderson's malign influence this was allowed to die out. At his visit here in 1863, he supported the creation of one boarding school for training wives for pastors and missionaries. Only older girls were allowed in that school. I personally witnessed Dr. Anderson's severe manifestation of disapproval of boarding schools for female children. He was a good, mainly a wise man and of immense capacity for controlling and ruling; but wedded to his own theories. Had training schools for young boys and girls been conducted forty years earlier, I believe that Hawaiian civilization would have been greatly accelerated.

REMOVAL TO EWA.

Reverend Artemas Bishop, in the summer of 1836, removed with his wife and two children from Kailua, Hawaii to Ewa, Oahu. A chief cause for the change of parish was the impaired health of Mrs. Bishop, in whom hard work as a school teacher in a very warm climate had produced some degree of nervous prostration. This gradually abated in the cooler breezes of Ewa, with abstinence from school work, although the energetic missionary still applied herself to active labors among the women, who met on our premises in great numbers.

CHURCH BUILDING BY LOWELL SMITH.

Our predecessors at Ewa were Rev. and Mrs. Lowell Smith, specially capable and devoted missionaries who had been only two years in the field. Mr. Smith had built a comfortable house of adobe bricks, thatched with grass and well plastered inside and out. He had also erected the adobe walls of a church, capable of holding an audience of about one thousand people. I think the roof also was on. Mr. Smith took up his residence in Honolulu, at first engaging in organizing and superintending day-schools, but soon organizing a second parish in the capital, and building the old Kaukapili church. The architecture of this as well as the Ewa church was

simple and homely. The adobe walls fifteen feet high were covered by a steeply pitched roof, which extended out in a verandah on all four sides, in order to protect the base of the mud walls from being destroyed by rain-drip. The timbers of the roof were long beams dragged from the mountains entirely by human strength, the labor being secured by volunteering, under the leadership of the chiefs.

THE MISSION PREMISES OF EWA.

Our removal from Kailua was with many *impedimenta*. There were four cows and heifers, and a flock of a dozen goats. A good sized canoe was brought for use in transportation between Honolulu and Pearl River. Among other things were a few cuttings of tree-figs from Kuapehu, the ends of which were inserted into sweet potatoes to prevent drying. From these proceeded a small grove of fig trees, which afterwards yielded abundant fruit. The mission house was located on the west bank of the Waiawa creek, about one-fourth mile northwest of the present railway station at Pearl City. There was nearly an acre of ground enclosed in an adobe wall. Some distance seaward was a glebe of a couple of acres of taro swamp, a little below where the railway bridge now crosses the creek. A small cattle pen was enclosed about twenty rods north. An old wall of the natives separated the upland from the planted lands and kept out the pigs and afterward the cattle. Copious springs of most delicious water abounded throughout the district of Ewa, a small one being in our own grounds.

ADOBE BUILDINGS.

Adobes furnished an excellent material for cheap building. The rich soil was very clayey. A species of bunch grass called makuikui, thickly covered the lower uplands. The dry fibre of its leaves lay in great accumulations of many years' growth. This very tough fibre was gathered in great quantities and trodden by the natives into the wet clay. This fibrous mortar after standing over night, was retrodden and moulded into huge bricks to be dried in the sun. So tough was the resulting concretion, that it was nearly impossible to drive a nail into a well made adobe. I have always fancied that makuikui grass to be worth study as a valuable fibre plant. It has nearly become extinct, being a favorite food of animals. Probably it can still be found in Ewa among the cliffs.

PENALTY FOR GOAT STEALING.

My father's cows were the first cattle that had ever run on the Ewa uplands. Waiawa valley above us lay knee deep with the richest of grass, where our cows rioted. Our goats took to the higher ground, where they flourished, being driven in and penned at night. This flock of goats was suddenly multiplied in a remarkable manner. One day they were found missing, and no trace discovered by any search. A flock of two hundred goats had been driven over from Waialua to Honolulu and our poor little drove of thirty absorbed on the road. The skins of ours were speedily identified in town

by a peculiar mark on the ears. The thief was brought before Governor Kekuanaoa, who sentenced him to make scriptural reparation, namely four-fold. He had to sell a fine horse, buying with the proceeds one hundred and twenty goats, which he very humbly delivered. An enlarged stockade had to be built for their accommodation. The kids would often stick their noses between the poles when hungry hogs on the watch would bite off their muzzles.

"ROBBING THE POOR NATIVES."

We made constant use of goat's milk for the table and cooking. Kid's flesh was a savory diet. Goat's mutton was too rank and went to the use of our native servants. Cow's milk was all reserved for butter, some of which was contributed to our hospitable friends at the capital. The herd gradually multiplied and in a few years became large. Mrs. Bishop finding herself incapacitated for teaching, finally devoted herself to butter-making, which brought in a good income relieving the American Board of their support. As the result the missionary couple when aged, had accumulated enough for their own support, and left about \$7,500 apiece to their two children. A third of this, however grew from avails of city lots in Rochester, N. Y. originally a piece of primeval forest inherited by Mrs. Bishop. As missionaries went forty years ago, these old people were counted among the "rich missionaries" who had "robbed the poor Hawaiians."

MORAL CONDITIONS IN EWA AND WAIANAË.

I was in Ewa three and a half years, being then sent "home" to the States, after the custom of missionaries' children. During that time I witnessed a constant and arduous devotion of my parents to spiritual and educational labor for the native people. My father's parish was a large one, extending from Salt Lake to Kaena Point, including the districts of Ewa and Waianae, with a population of seven or eight thousand, exclusively Hawaiians. Owing to their contiguity to a large sea-port, the moral condition of the people was more corrupt than at Kailua. In Ewa, a considerable body of hopeful christians had been gathered into the church. Most of the people gave a friendly attention to religious teaching. The proprietary chief of Ewa was the pious Premier Kinau, whose influence secured the general adherence of the people to the missionary. It was otherwise in Waianae, whose proprietary chief was Liliha, or "Madam Bobie," who had long been hostile to the Protestant missionaries. The Waianae people were accordingly averse.

LIVING CONDITIONS AT EWA.

We had a most excellent near neighbor in Kanepaiki, the old head man, or Konohiki of Ewa, for whom I formed a decided affection. He was very efficient in completing the unfurnished church, and in building a large adobe school-house, not far from the present District school. In a year or two, a very competent teacher came from Lahainaluna Seminary, a fine looking native, named Haaliliamanu. He grew to be high in the King's favor and

became a "Hulumanu," or member of the King's personal staff. Here and there, in the vicinity, lived native men or women of a class above the common makaaianas, although hardly chiefs, yet in possession of such "ilis" of land as to enable them to keep a few dependents. Of such a kind was old Deborah who had a very lazy horse, always at our service when needed for a trip to town. Throughout the district of Ewa the common people were generally well fed. Owing to the decay of population great breadths of taro marsh had fallen into disuse, and there was a surplus of soil and water for raising food.

KAILUA AND EWA CONTRASTED.

The dwellings of the common natives, I think, were in poorer condition than those in Kailua. Doubtless the moister climate caused more decay of the thatch. The people were also probably more drunken and dissolute. As in Kailua, there was no dwelling of a native not of the old Hawaiian style. Three miles west at Waipahu, stood a partially framed house, occupied by Mr. Thomas Hunt. The clothing of the common people was mostly in the old native costume. A few more men wore cotton shirts when out on a week-day, and now and then legs were incased in pants when at church. No beasts of burden were in use. All burdens were carried on the old native yoke or mamaka, just as Chinese now carry them in the streets of Honolulu. As in Kailua, numbers of lean swine hung around the outer walls of the villages, or were occasionally enclosed in pens. Owning no land and dependent on the caprice of their superiors, the common people were shiftless and indolent, living from hand to mouth.

MONEY WAGES UNKNOWN.

Money wages for labor were nearly unknown. Perhaps along the wharves in Honolulu, laborers might earn a real or hapawalu a day. Domestic servants or ohuas were glad to be employed for their keep. It needed quite a number of them to perform the work of a small household. Expenses were light. In the later thirties, the missionaries began to be paid regular stipends of four hundred dollars for each couple, and a small addition for each child. This was found to be comparative opulence, with our very plain way of living. Our servants cultivated the little glibe, and so fed us and themselves. Pig-pen, cow-pen and goat-pen contributed with broods of fowls and turkeys.

PIA AS A DIET.

Supplies of bananas, sugar cane, melons, squashes and other eatables were bought for books, slates etc. A very common article was pia, or arrow root, which came in the form of balls in a dirty condition, imperfectly separated from the fibre of the tubers. This we would wash and strain, leaving the snow-white sediment to be dried in the sun. Pia was a favorite diet with the little mission children in Honolulu, and probably wholesome. I had a special aversion for it, owing to an unhappy infantile experience. It was with a distressing loathing that I used to see little tots gorging themselves on their home steps with the brown jelly in their tin cups. It was colored with molasses. But those little Clarks and Judds all grew up healthy. A chief

use of pia was for starching clothes. To separate the starch from the potato-like tubers required only grating, straining and washing. The tubers grew wild, probably an imported plant, with an arrow-shaped leaf.

TRIPS TO WAIALUA.

Our family made repeated trips to the home of Rev. John S. Emerson at Waialua during those years. There was then no road save a foot path across the generally smooth upland. We forded the streams. Beyond Kipapa gulch the upland was dotted with occasional groves of Koa trees. On the high plains ti plant abounded often so high as to intercept the view. No cattle then existed to destroy its succulent foliage. According to the statements of the natives a forest formerly covered the whole of the then nearly naked plains. It was burned off by the natives in search of sandal-wood which they detected by its odor when burning. There were no bridges in Wailua. I think we crossed the creeks in capoes, swimming the horses. The Emersons were living in the then new stone house, which is still standing, much dilapidated. The wooden upper story was added later. At one time I spent several weeks there very pleasantly with my mother. Both Mr. & Mrs. Emerson were very kind. Mr. Emerson heard my Virgil lessons, and inducted me into the mystery of scanning hexameters. He was an apt teacher.

HOME-MADE MOLASSES AND FILTERS.

The only disagreeable thing I remember was a certain monotony of diet at supper, which consisted chiefly of pai-ai and molasses. Mr. Emerson made his own molasses, grinding a few bundles of cane in a little wooden mill turned by oxen, and boiling down the juice in an old whaler's try-pot. The syrup was so thick as to run with difficulty from the bottle, and extremely sweet. All our molasses at Ewa was supplied by Mr. Emerson. On one occasion the missionary took his ox-cart, and with several natives, went some distance along the beach to the northward, where we broke out and loaded the cart with a quantity of large blocks of creamy sandstone, from twelve to fifteen inches thick. It was found beneath the sand in the water, and was in so soft a condition as to be cut like cheese. After a few day's exposure, it petrified to great hardness, just as lime mortar does by carbonating in the air. After getting it to the house, all hands went to work and hollowed and shaped the blocks into conical drip stones. I was furnished with mallet and gouge, and hollowed out a passable drip stone not very well proportioned. Such stones were much used for filtering and cooling water in those days.

NO BRIDGES UNTIL 1840.

Our journeys to Honolulu were infrequent, at first by canoe, but latterly on horseback, my father having become the possessor of a horse or two. The road was only the native trail, winding up the various palis on the way. There were no bridges in these islands until after 1840. We emerged from Moanalua valley a quarter mile above the present road, fording the fish pond beyond Iwilei, and wading through the mud flats near the present Railway wharves. Every two or three months Mr. Emerson would call at our house

on his way to town. Rev. Lowell Smith was also a frequent guest, loving to visit his old parish, and helping to inspire the people in spiritual things. He was an alert and genial missionary, very singleminded and full of zeal. In riding, he always wore a thin black claw-hammer coat, with the skirts carefully pinned forward to keep them from contact with the back of the horse. Those old Ewa missionaries would have marveled could they have had a vision of present conditions, with swift railway trains sweeping through the country, vast cane fields intersected by rail-tracks and huge irrigation pipes climbing the uplands from the immense steam pumps. My father, who died in 1872, never saw a railway, nor even a large steamer. During half a century his only trip abroad was on a missionary errand to the Marquesas.

PEARL OYSTERS AND CLAMS.

The lochs or lagoons of Pearl River were not then as shoal as now. The subsequent occupation of the uplands by cattle denuded the country of herbage and caused vast quantities of earth to be washed down by storms into the lagoons, shoaling the water for a long distance seaward. No doubt the area of deep water and anchorage has been greatly diminished. In the thirties the small pearl oyster was quite abundant, and common on our table. Small pearls were frequently found in them. No doubt the copious inflow of fresh water favored their presence. I think they have become almost entirely extinct, drowned out by the mud. There was also at Pearl River a handsome speckled clam, of delicate flavor, which contained milk white pearls of exquisite luster, and perfectly spherical. I think that clam is still found in the Ewa lochs.

A VISITATION OF SMALLPOX.

But the greatest change in Ewa is in the almost extinction of the native population. Some 4,000 Asiatic laborers have taken their places, and few Hawaiians are to be seen. The few who remain have abundant means, renting their lands to the industrious Chinese. The greatest destruction of Hawaiian population took place in the summer of 1853, by an invasion of small-pox. This broke out in Honolulu. Rev. A. Bishop immediately procured a supply of vaccine matter, which proved to be spurious. He then proceeded to inoculate the people with small-pox, thus saving hundreds of lives, and himself coming down with varioloid, having formerly been vaccinated. But more than half of the population of Ewa perished in a few weeks. The earliest cases were pathetic. A young woman in Kalauao was visiting in Honolulu, and contracted the malady. She hastened home in terror and summoned her friends and kindred from all the villages of Ewa to bid her farewell. They all came and kissed her, then returned to their homes and all died. The young woman herself recovered.

The population of the other islands were nearly all saved by means of thorough vaccination before the pestilence had time to spread, although about eighty died at Lahaina before they could be protected. I was then living there. At that time no one had thought of objecting to vaccination.

I think that at Ewa, we saw much less of the higher class of chiefs than

while living at Kailua. Their residence was at Lahaina, or at Honolulu, where I seldom saw them. I do not remember ever in my childhood to have seen Kauikeaouli (King Kamehameha III) or his sister Nahienaena, both of whom I often heard mentioned. There was one chief whose face was familiar, named Kealiihonui who was conspicuous for his stature and personal beauty. He was brought to Honolulu in 1823 by the then tyrannical Regent Kaahumanu, who took him and his father, King Kaumualii of Kauai as her joint husbands. At her conversion in 1825, she put away her younger husband. I was also familiar with the person of Auhea Kekauluohi, the mother of King Lunalilo.

HOW ROYALTY TRAVELED.

The Premier Kinau, half sister of the King, I often saw. On one memorable occasion, she and her husband, the redoubtable Governor Kekuanaoa, visited Waiawa where we lived. They had been making a sort of royal progress around the island, and were travelling in great state. They had come through that day twenty miles from Waialua, and were received by the Konohiki and people under a great lanai covered with cocoanut leaves, where they sat upon the large sofa on which they traveled. This sofa was mounted upon an immense platform composed of long poles crossing each other in such a manner that fifty men at once could lift and trot off with their royal load. The mission family went up and paid our respects in company with the principle people of the district.

There was a great gathering of people both those of Ewa, and those who accompanied the chiefs from Waialua. Our people prostrated themselves and crawled up into the royal presence.

The head man of Waialua was quite conspicuous in active attendance on the great personages, and was got up in superior costume. Our own head man Kanepaiki seemed to be absent, until I at last espied him squatting at some distance among the common natives, dressed in an old dirty shirt and malo. Expressing my surprise, my father explained that the high chiefs would think much more of him for his humility than of the ostentatious gentleman from Waialua. I had never seen Kanepaiki so poorly dressed. Possibly the fact of Kinau being owner of Ewa made some difference, relegating him to the position of a mere servant, whereas the Waialua man had been acting as entertainer.

ARRESTING A PRINCE.

Kinau was a tall and portly chiefess, weighing from 250 to 300 pounds.

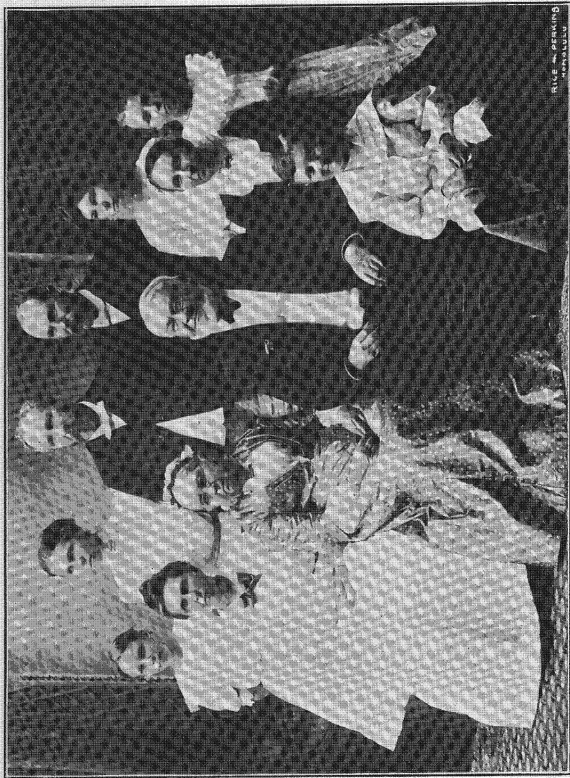
Her features were coarse and unattractive, yet not forbidding. She then had three sons and a daughter. Two of the sons became the Kings Kamehameha IV and V. An older son Moses, died in youth, after having developed a violent and uncontrollable nature, of which I once witnessed a sample in his childhood. We were embarking for Kauai early in 1839 in company with Mr. and Mrs. Amos F. Cooke and the old governor of Kauai, Kaikioewa, who was the official Kahu, or guardian of little Prince Moses. The youngster had made up his mind to go with his guardian. He came down to Robinsons'

wharf where we were about to set sail, and laid hold of the side of the brig, yelling and howling. His guardian all the time continued to dissuade and expostulate. No one dared to use force upon the furious child. This continued for more than two hours, until nearly night. Finally his father, the governor Kekuanaoa, sent down a file of soldiers with orders to arrest and convey the little prince home to the palace near by. This released us from further detention, and we set sail. It was a tiresome, but very curious experience. To Mr. and Mrs. Cooke it was doubtless an instructive experience, since about a year later, as I think, they were placed in charge of the "Royal School" for the children of the chiefs, over whom they maintained a family rule of gentle but firm discipline, to which the little princes had been strangers.

A ROYAL LUAU.

To revert to the royal visit at Waiawa, several days had been previously occupied in preparing food for the entertainment of the chiefs and their great retinue, taxing all the resources of the people. Probably the food was taken from the patches, always the best ones, which were set apart for the use of the Landlord, and cultivated by the weekly labor of all the natives. Not far inland from our house were dug three immense "imu" ovens. These were deep and broad pits, holding twenty or thirty barrels each of taro. One or two cords of wood were piled in each pit and covered with lava stones perhaps two feet deep. The burning of the wood brought most of the stones to no more than red heat. When the wood was consumed the hot stones were leveled and the taro piled upon them together with sweet potatoes, and large hogs wrapped in banana leaves. The interiors of the hogs were first filled with red hot stones, as well as cavities opened between the shoulder blades and ribs. Other meats were added, such as goats fowls and fish, the smaller being wrapped in ti-leaves.

As soon as the piles of vegetables and meats were suitably laid up in the pits, the whole mass was covered deeply with fresh grass and rushes. The earth dug from the pits was then piled upon the grass, covering it deeply, but leaving a small opening on the summit of the mound. Into this was suddenly poured water to the amount of three or four barrels. The earth was instantly piled into the opening, sealing in the violently escaping steam generated by the red-hot stones. The ovens were then left to "stew in their own juice" for several hours. On opening, the contents were found to be most thoroughly cooked by the steam. The meats were peculiarly savory. Probably there is no more satisfactory plain cooking in the world, nor any performed with greater economy of fuel than in the Hawaiian Imu. A heavy task remained to clean the taro and pound it into poi. Much of the taro next to the stones had become baked into a tough but savory crust. I believe that the New England "clam-bakes" are cooked in a similar manner, with drift wood in pits in the sand of the beaches.



REV. SERENO EDWARDS BISHOP, HIS WIFE, CHILDREN AND GRAND-CHILDREN,
TAKEN UPON THE BISHOPS' GOLDEN WEDDING DAY, MAY 31, 1902.

RILEY & PERKINS
HONOLULU



SILK AND SUGAR PRODUCTION.

Our visit to Kauai on the occasion mentioned above, extended from Koloa to Hanalei. Koloa was occupied by Mr. Gulick, Hanalei by Messrs. Alexander and Johnson. Mr. Gulick lived in a large thatched cottage of native style. Of special interest at Koloa was a silk farm conducted by Mr. Titcomb who had a few acres of *Multicaulis mulberry* which were very flourishing. He had also a considerable quantity of silk-worms, which had to be fed on fresh mulberry leaves. We saw the worms making cocoons, and the various processes of reeling the silk from the cocoons into beautiful and glossy skeins. That plantation failed, doubtless in part from lack of reliable skilled labor.

There was also a little sugar plantation at Koloa, managed by Mr. Hooper, who was a partner of William Ladd and P. A. Brinsmade, merchants of Honolulu. The crop could not have exceeded one or two hundred tons. The mill had small iron rollers, driven by water-power. The boiling train was composed of rather flat pans. The syrup was crystallized in large jars like conical flower-pots, with a hole at the apex, corked with cane-bagasse, which when opened, allowed the molasses to drain out. A large pile of sugar gathered from such pots awaited transportation. I gratefully remember a generous hunk of the brown crystals graciously bestowed on myself by Mr. Hooper, who must have been a good sort of man. I think that sugar plantation generally brought some profit to its owners, and had a history continuous with the modern and very profitable Koloa Plantation. It was the earliest manufactory of sugar in these Islands. At the time of our visit, the native labor was hired at twelve and a half cents a day, payable in coarse cotton cloth at twenty five cents a yard. The natives were eager for the wages, never before having earned any. No coin was used, only token-money.

A VISIT AROUND KAUI.

Mr. Gulick raised colts, and his numerous boys all became expert horse-men. The oldest, Halsey, was then eleven years old, a boy of great brightness and loveableness. Very interesting was a business training for his boys, instituted by Mr. Gulick, who made money tokens of his own, with which the boys traded with him and each other. This cultivated in them ideas of property value, and of traffic, which were serviceable throughout life. Orramel, the second boy, was then an alert lad of nine, old enough to be a playmate. Five brothers of this family became remarkable as a peculiarly active and successful set of foreign missionaries. All still surviving except Halsey.

Mounted on good ponies by the kindness of Mr. Gulick we made a two days ride to Hanalei. I remember that Mr. and Mrs. H. O. Knapp were in our party. Mr. Knapp was a brother of a lady who came to Kauai a few years later Mrs. Dr. J. W. Smith of Koloa. I remember that he was very neat in his dress and wore gloves when riding. Mrs. Knapp afterwards became the stepmother of Sanford B. Dole, a lady of very calm and quiet efficiency. The ride was a delightful one through a rarely beautiful country. At the last descent into the splendid Hanalei valley messengers from

Mr. Alexander met us with a large bucket of cow's milk, which I was thirsty enough to drink, although rather disliking its flavor, being used only to goat's milk. The Bishops found hospitable quarters with the then young Alexanders, who had a comfortable stone house. They had three little boys, the oldest now my honored friend and "puluna" of the Coast Survey, and the youngest the genial sugar-king, Sam.

ENTERTAINED BY ROYALTY.

We had a canoe ride up the beautiful river. The great green mountain towering over the rear of the valley, made a lasting impression. I have not since seen the place in 62 years. We returned the following week as far as Lihue. There were one or two deep streams to cross in canoes, swimming the horses. At Wailua, we were entertained with very warm hospitality by the Ex-queen Debora Tapule who had formed a great affection for my own mother in Waimea in 1824. On leaving she gave us a large package of choice tapas and fine Niihau mats. She lived in a very large thatched cottage with a most clean and comfortable interior. Reaching the little bay near Lihue, we spent there some thirty-six hours. It was long before the days of sugar plantations and cattle ranches. The natives were numerous and the only inhabitants. A schooner bore us speedily to Honolulu with a fair wind, which was unusual in sailing "to windward."

SOCIAL HONOLULU IN THE THIRTIES.

While at Ewa we increased our acquaintance with the few white families residing in Honolulu not of the Mission. Mrs. Charlton and Mrs. Taylor have already been spoken of. We were once at dinner at the house of a Mrs. Capt. Hinkley, and repeatedly at that of Mrs. Capt. Carter, a most sociable and active lady, whose many descendants have greatly prospered here. We had much acquaintance with the families of Messrs. Ladd and Brinsmade, who had some church connection with us unlike most of the foreign residents. We saw much of the sister of Dr. Wood who married Capt. Little, and after his loss at sea, became Mrs. Hooper a very lively and agreeable woman. I remember being at the house of Mrs. Corney, whose two aged daughters still reside in Honolulu. There were several prominent white men, whose faces were familiar, Consul Jones, old Mr. Reynolds and old Mr. Pitman, James Jackson Jarvis himself, barely of age, brought his girl-bride fresh from America, to our house and spent a fortnight in a very jolly honeymoon time. Jarves afterwards edited "The Polynesian," wrote Hawaiian History, and became prominent in the literature of Art.

Mrs. Captain Dominis one afternoon made her appearance in a boat on the creek near our house, bringing her little son and made us a very agreeable visit. The better class of whites in Honolulu in the thirties were wont to gather on Sunday mornings at the Seamen's Bethel, where Chaplain Diell held public worship. A number of half-white youths also attended, some of them pupils of Mr. Andrew Johnstone, who taught the "Charity School." Of course our intimacies were with the circle of missionary families. Of these were the Bingham and Dr. Judd's genial household, the very kind and

hospitable Chamberlains, the families of Messrs. E. O. Hall and Henry Dimond, who had charge of the Printing and Binding departments, and after 1837 the families of S. N. Castle and A. F. Cooke. The Lowell Smiths have already been named. Besides these, the families of Rev. Ephraim Clark and Rev. Reuben Tinker were intermittently resident in Honolulu. Altogether it was a large circle of warm hearted and enthusiastic missionaries, bound together by the warmest of united activity and purpose.

THE STRONG MAN OF THE MISSION.

Of this mission circle Mr. and Mrs. Bingham held a certain leadership, by virtue of longer experience, and of some superiority of intellect and capacity. All looked up to Mr. Bingham, as the strongest man of the mission, and a leader. He possessed much calmness and courtesy of manner. The highest testimony to the mental and moral qualities of Mr. and Mrs. Bingham was in the immense personal influence which they acquired over the minds and hearts of the leading royal chiefs. This ascendancy made him extremely obnoxious to the majority of the foreigners, who detested moral restrictions. As a child I always held him in high honor and regard, with much liking, mingled with a little awe. There was another missionary couple on Oahu whom we often met, and of whom I have the pleasantest memories the Rev. B. W. Parker and wife of Kaneohe. Mrs. Parker, now in her nineties, is the only white survivor of the adult residents of Honolulu in 1836 when we came here.

PERSECUTION OF THE CATHOLICS.

My father was of habitually even temper. One of the very few occasions when I ever saw him betray angry excitement, was in 1836, when we saw passing opposite our house at Ewa on the public road one morning, a company of perhaps forty Catholic natives, who were being led over from Waianae to Honolulu under guard to receive at the capital sentence to labor on the roads for their crime of worshipping images, contrary to the royal statutes. The good missionary was grieved to the heart, and deeply roused, to see men and women in his parish suffering ignominious punishment for the practise of their religion, even though he believed them to be sadly misguided. He immediately mounted his horse and rode to Honolulu to expostulate with Kinau and Kekuanaoa. His remonstrances, however, were ineffectual. The native rulers had adopted a determined policy of suppressing by force what they deemed to be real idol-worship, forbidden in the second Commandment. I cannot personally testify that all the Protestant missionaries were equally opposed to that persecuting policy, although I suppose that they were so. This arbitrary course of the chiefs was put to an end in the following year by the visit of a French warship.

VISITING MISSIONARIES.

Among the interesting incidents of the three and a half years of my boyhood spent at Ewa, was a series of visits from a large party of Methodist missionaries on their way to labor among the Oregon Indians. They had come

around Cape Horn as far as Honolulu, and were detained here seeking passage to the Columbia and Willamette rivers. This may have been in 1838. Many of them sojourned with us at Waiawa for more or less time. Two quite pretty and lively young ladies are remembered, who were on their way to marry missionaries already on the ground. There was also a maturer and most agreeable lady, Miss Pitman, who was to marry a leading missionary in Oregon. A Dr. White, I think, was at the head of the party. I believe that several of these good people helped to make important early history in Oregon.

I think that none of the Oregon missionaries of the American Board came out by this route, nor were their names familiar. An exploring pioneer, the Rev. Samuel Parker, spent some time among us, on his way home, and is well remembered. The name of their station, Walla Walla, was familiar. At that time Hawaii had some commercial intercourse with the Columbia River, or "Keomolewa" as our natives called it. Some "spruce" lumber was imported thence. My first taste of an apple was one from Oregon in 1839. My father was enthusiastic in once more tasting the familiar fruit of his boyhood after seventeen years. I did not relish it. Landing in Newport, R. I., in May, 1840, from a six months' voyage in a whaler around the Horn, I eagerly invested three cents in four russet apples. After biting into two of them, I threw the whole over a fence. But I had been for several weeks luxuriating upon luscious oranges bought in Pernambuco for twenty-five cents a hundred. However, I failed to appreciate the finest apples, peaches, or plums until the long sharp cold of winter. I longed for sugar cane, bananas, and melons. By February apples began to taste good.

MISSIONARY REINFORCEMENT OF 1837.

To my own mind, the most exciting event that Ewa period, was the arrival in May, 1837, of the "Mary Frazier, with a great reinforcement of new missionaries. There was a company of thirty-four persons, including five ordained men, nine teachers, one physician, and one circular agent, with their wives, besides two single ladies. Five of those families, Bailey, Castle, Cooke, Johnson and Wilcox, became permanently identified with these Islands. The others had all left in less than twenty years except Miss Lucia Smith, who became the second wife of Rev. Lorenzo Lyons. The venerable Edward Bailey, who was the youngest man of the company, is their sole survivor, at the age of eighty-seven. Such a large and strong accession to our already most successful but much overworked mission, was a cause of the greatest gratification and excitement. The assignment of these new people to their various stations much prolonged the work of the General Meeting of 1837. Of the five ordained men, none proved to be of more than average ability, except the Rev. Thomas Lafon, M. D., who had great natural force of mind and character.

AN ANTI-SLAVERY ENTHUSIAST.

He was a product of great Revival and Anti-Slavery movements of those days and had himself set free his inherited slaves. Dr. Lafon was an enthusiast in anti-slavery matters. He found much fault with our old mis-

sionaries for not paying fixed wages to their ohuas, or servants. He denounced it as a form of slavery. My parents felt that to be unreasonable, as our servants were envied by all the common people for their advantages and coveted positions. The zealous Doctor's expostulations so prevailed, however, that from that time on, the missionaries paid their servants fixed wages. It is probable that Dr. Lafon's zeal for freedom may have somewhat contributed to hasten the emancipation of the Hawaiian makaainanas from serfdom, and their endowment with their kuleana allotments in fee simple a few years later.

Dr. Lafon returned to America in four or five years, afterwards becoming eminent as a very benevolent medical practitioner. Among the fruits of his strenuous influence here was the strong opposition which he enlisted among our missionaries against the compromising attitude of the American Board towards what the Abolitions denounced as the "hellish sin of slavery." In the course of a few years this led to the withdrawal from their connection with the Board, of the Revs. Reuben Tinker, and J. S. Green, and of Dr. Lafon himself, all of them among our best missionaries. They felt unable longer to receive pecuniary support from a Board so implicated with the sin of slavery. Only Mr. Green found means to maintain himself in the field; the other two good men left the Islands. The consciences of the rest of the missionaries failed to be awakened upon the subject enough to make them abandon their work.

THE GREAT REVIVAL.

I here pass on to record what I can recall of the greatest events of those days, and one that did more than any other to give permanent shape to the subsequent history of Hawaii. That was the intense and pervading Religious Awakening of the years 1838 and 1839. To enter very deeply into the tremendous tide of feeling which enveloped and uplifted the whole nation for many months, was not possible at my age of eleven, with my nearly entire ignorance of the native language. There was a great multiplication of religious meetings, attended by enormous congregations. Our great church on the hill would hold one thousand people, with four hundred more standing in the encircling verandahs. It finally became necessary to cover the north side of the church yard with a lanai, which would seat six thousand people. On several occasions this space was well filled, the preacher standing near the church door, so as to be heard by those sitting inside of the church.

One Sunday morning, before the removal to out-doors, an impression still vivid was made on my mind by a strange intensity of tone, and exaltation of feeling in my father in his pulpit. Ordinarily he had no forcible eloquence, his usual manner being rather mild and colloquial. On this occasion, he was entirely carried out of himself, and spoke in an impassioned strain of intense fervor, finally calling out in a strange thrilling tone to the crowd of sensual sinners before him, "U'oki! u'oki!" (Stop! stop!) I have always felt that he was for the time a veritable prophet, uplifted above his human capacity by a supernatural inspiration. I have many times afterwards witnessed such a Divine afflatus taking possession of preachers in times of Revival, when the Holy Spirit was present in great power. At similar times it has been my own experience to be in the same way uplifted quite out of my usually inefficient delivery, and

to be swept forward upon a Divine tide which seized upon hearers and preacher alike. The supernatural and divine character of the phenomenon is matter of personal conviction and certainty.

A NATIONAL PENTECOST.

During those marvellous months, that strange and wonderful mental and spiritual uplift pervaded the whole Hawaiian nation to its remotest extremities. Every missionary experienced it in his own field and his own spirit. The revival spread like a fire from island to island, enveloping the whole people. It was a veritable national Pentecost, in which hundreds and thousands every week were converted to Christ, with intense manifestations of feeling. In my father's great congregations, such emotional excitement was not attended by any outcries or noisy expression, but there was much weeping, as I recollect it. As I recall those days, I do not seem to have participated in the popular excitement, except as a much interested childish spectator. My mother seemed much troubled about my "hardness of heart," which was mere juvenile incapacity. Four years later in Rochester, I became intensely wrought upon under the preaching of Finney.

A very notable incident of those days was my father's administration of baptism to four hundred converts on one Sabbath morning, the ordinance occupying two hours' time. Each person received a Christian baptismal name, attended by the application of water to the forehead. There had been a thorough preliminary organization of the four hundred people into groups of ten or twelve each. Each group was in charge of a luna, who held a list of their names in the order in which they sat. These forty groups occupied a large space in the great lanai. The pastor moved among them with an attendant deacon carrying the font, a sponge being in the minister's hand. When he approached a group, they knelt down before him. Taking the prepared list, he named them in succession, applying the wet sponge to the forehead of each person when named, thus: "John, Zebedee, Martha, Timothy, Dorcas, etc., I baptize you all (oukou apau) into the name, etc." Generally each convert had selected a Bible name for himself, the pastor correcting any injudicious choice, such as Iscariot, or Herodias, or Beelzebub.

BAPTIZING WITH A BRUSH.

The ordinance was deeply impressive, and was witnessed by six thousand people from Waianae and Ewa. In his parish of Hilo, the Rev. Titus Coan used much less ceremony in administering baptism to over five thousand persons in one year, and to twelve hundred at a single service. He sprinkled each group with a brush as a whole, without calling off their individual names. It might have been impossible to reach the whole twelve hundred by any other method. How the twelve apostles and their helpers baptized three thousand disciples on the day of Pentecost we are not told. After witnessing that two hours' sprinkling of four hundred, I hope my Baptist brethren will exercise charity towards some incredulity on my part about the three thousand Jews having been immersed in one day. To have immersed his four hundred would probably have exceeded any of my father's fairly good organizing capacity, without some

sacrifice of decorum, such as making them dive off a bank, a score at a time. How Peter managed it, if not by sprinkling, must be guessed at, subject to reasonable limitations of propriety. It would seem as if the method of applying the water of baptism must allow of much latitude.

It had always been the practice of the missionaries in Hawaii to enforce a probation of six months upon candidates for membership in the Church, before their admission by the rite of Baptism. During that probation, they were known as "poe Hooikaika," or strivers. Usually many of them would fail to stand fast through the six months without lapsing into the prevailing sin of unchastity. During this Awakening my father, like most of his brethren, did not deviate from the old rule as to probation. I believe that Mr. Coan and Mr. Lyons baptized their converts very promptly, and experienced much falling away in consequence. The records show that those two ardent souls baptized as many converts as all the rest of the missionaries together. For a whole generation those two churches of Hilo and Waimea held precedence among the Hawaiian churches in strength and activity.

CHARACTERISTICS OF TITUS COAN.

From the time of his entrance in 1835 upon missionary labor in Hawaii, Titus Coan had shown exceptional spiritual fervor, combined with a rarely winning manner. He would anywhere have proved an evangelist or revivalist of unusual force. When he first arrived at Honolulu in 1835, he held meetings with us children of the older missionaries, which are recalled as very moving and winning. We youngsters used to hang upon Mr. Coan's words, and formed a deep personal attachment to the new missionary. Three of the older ones made public profession of religion in 1836, in consequence. I later became aware how the rugged old Calvinistic theology had served to impede my natural spiritual development, and to discourage a free childlike taking hold upon the lovely and gracious Divine Power. But the fault lay in the strenuous and ungracious home teaching, and not in Mr. Coan's attractive invitations.

LIBERALIZING EFFECT OF THE REVIVAL.

I think that the older pioneers of our Mission had but limited experience, if any, of the intense Revival activity which so roused and multiplied the American churches between 1825 and 1845. Those devoted and faithful fathers, however, laid deep fountains. In their second decade there came to them, bringing fresh spiritual fire from the great Finney revivals, such men as Lorenzo Lyons, Sheldon Dibble, Reuben Tinker, Lowell Smith and Titus Coan, men who abounded in the divine afflatus, and spoke straight to the hearts of the already listening heathen. Thus, from diligent early seed-sowing, and later divine watering, burst forth the great Awakening of Hawaii, which revolutionized the life and thought of the old sluggish, sensual, childish heathen race, and lifted them all, people and chiefs, up to a new and exalted plane of hope and purpose. It was this spiritual revolution of the Hawaiians, which made not only possible, but inevitable, the immediately following political evolution, in which the serfs were freed and endowed with lands, just laws were enacted, Royal power lim-

ited by a liberal Constitution, and Representative Government established. All this was accomplished by the cordial coöperation of Monarch and Chiefs, within less than ten years after the great Revival. That was the turning point in Hawaiian history. Having been effectually Christianized by their great Pentecost, and imbued with pervading and reverent moral sentiment, the Hawaiian spontaneously proceeded to seek organization under civilized law and order. The great religious Awakening of 1838-9 was thus the decisive shaping of Hawaiian political life. It rendered Hawaii thence forward the bright center of Christian Civilization in the Mid-Pacific. That Civilization had a vitality and strength that surmounted the efforts of later degraded monarchs to resuscitate the old heathen idolatry and despotism.

THE MISSION "GENERAL MEETINGS."

In closing these reminiscences of my days of childhood, mention needs to be made of the remarkable concentration of spiritual force which I witnessed in the "General Meetings," which were held yearly in Honolulu, to which all the Mission families gathered. Their daily sessions were held during from four to six weeks of each year in the old school house, which still stands in the rear of Kawaiahaeo church. Often some forty or more of the missionaries besides their wives were present, as well as many of the older children. As a boy I was often present in those meetings, with deep interest in many of the discussions. Much business was transacted relating to the multifarious work and business of the Mission. New missionaries were to be located, and older ones transferred. Expenditures upon schools, printing, dwellings, etc., were decided upon. Assignments of work were made in translating, revising and writing books. Annual reports of the American Board were agreed upon, including advice upon changes of policy and management.

FRATERNAL SPIRIT OF MISSIONARIES.

While serious differences of opinion would arise, and warmth of discussion occasionally appear, I think it never grew to bitterness. There always prevailed a spirit not only of forbearance and harmony, but of very warm fraternal affection. Such is my recollection of what I heard and saw. The general impression continues very deep upon my memory, of a lofty and profound spiritual enthusiasm which pervaded all the conference and counsellings of this noble band. They were ardent believers in the conversion of the heathen to Christ. They felt a great courage in witnessing the wonderful work going on in their churches. They had a very fervent faith in a coming triumph of the Gospel in all heathen lands. The business of their Lord and His Gospel stood supreme in all their thoughts. In the expectation of His victory they were hopeful, joyful, ardent and fervent in spirit.

That old school house witnessed many rare hours and days of most consecrated and blessed conference, which deeply stirred even our childish minds and spirits. Memory has doubtless retained chiefly what was best and highest. It is remembered as a living realization of the hymn:

“To each the soul of each how dear;
What tender love, what holy fear!
Their ardent prayers together rise,
Like mingling flames in sacrifice.”

In November, 1839, at the age of nearly thirteen, I left this scene of high missionary activity, to embark on the whaler “William Lee,” for a voyage of six months to United States, where I remained twelve years, taking College and Seminary courses, and returning again around the Cape to Honolulu with my wife after more than thirteen years’ absence. We hope to celebrate our golden wedding ten months hence.

Memories of Old Honolulu

"When I returned to Honolulu in 1853, after an absence of thirteen years, I was struck by the many changes.

"Primarily civilization had advanced among the native Hawaiian people. They were then generally clothed, which they were not when I went away.

"The major portion of the residents of Honolulu, however, still lived in thatched houses. In fact, the town was almost entirely composed of this kind of dwellings.

"One of the greatest changes was in the cutting through of the roads. Nuuanu avenue had been opened its entire length and Fort street had been opened as a driveway. These had not previously been open.

"When I went away there were only the Punchbowl road, Beretania street, King street and Merchant street. This was the condition of the city in 1840.

PASSING OF THE FORT.

"Another great change was the disappearance of the old fort, from which the street takes its name. This old fort stood where the Hackfeld building now stands, the site being, of course, larger.

"The esplanade which has for so long been the seat of much business was not then in existence. The land then ceased considerably above the point where the Customs House now stands.

"All Government business was then conducted in the old building which now stands just waikiki of the postoffice. The various offices were there, and I remember well seeing as clerks in the finance office under Dr. Judd, Warren Goodale and Asa Thurston, fathers respectively of William Goodale of Waialua plantation and L. A. Thurston. Charles R. Bishop was then in the Customs House as collector.

CITY LIMITS IN 1853.

"The settled portion of the city was then substantially limited by the present Alapai and River streets and mauka at School street. There was hardly anything outside of those limits and the remainder was practically an open plain.

"Above Beretania street, on the slopes and beyond Alapai street, there was hardly a building of any nature whatever.

"At that time there was a small boarding school for the children of the missions at Punahou, under direction of Father Dole. This little structure alone intervened between the city and Moiliili, where about the church there were a few houses. These were all of the native thatched kind and were inhabited by the native people.

"The plains remained open until within twenty-five years, before there was any building there of any description.

"Another feature which was noticeable was the absence of a variety of foliage. The almost universal algaroba tree was then only to be found in the gardens and yards, as it was a new comer and had not begun to spread. There were few trees and the palms were not in great variety at that time.

"We came down in the largest sailing ship of that day, the Sovereign of the Seas, arriving here in January, 1853.

SHIP TOWING IN 1853.

"The ship was towed into the harbor by a long line of native people who grasped the hawser and walked along the reef. It was after this that oxen were substituted for the purpose of bringing in ships.

"There was a path along the reef which bound the entrance, which is a natural break in the outer reef, and along this the men and oxen walked in pulling in a ship, marching through the water.

"Inside the harbor we found probably 100 whaling ships of from 300 to 500 tons. These had come in with oil and were waiting to reship. Our big ship was soon surrounded by the whalers, two on each side, which began at once to transfer into her the barrels of oil for shipment to New York.

BASIS OF BUSINESS IN 1853.

"The main business here then was the dealing with the whaling fleet, of which there were not less than 250 ships which were in the habit of calling at Honolulu, Lahaina and Hilo, generally twice during a year. Their summer months they spent in the Okhotsk and Behring seas and in the Arctic ocean, taking the right whales which then were abundant in those seas. In the winter they went south or to Japan. This gave them a chance to make the year very full, for they left their oil here for reshipment and thus with refitting were enabled to put in almost the entire season at sea.

TYPE OF ARCHITECTURE.

"There were very few structures of the American or European styles of architecture or building. There were a few houses of wood and stone, the latter predominating. There were several fairly commodious and handsome buildings occupied by the well-to-do merchants. Now there are scarcely any traces of the old buildings which were then accounted so good.

"I can remember only one historical building, that being the main room formerly occupied by Hackfeld & Co., at the rear of their new building. That was at that time the Legislative and Judiciary building.

"Kawaiahao church was then much in the same condition as now.

"On the site of the lately destroyed Kaumakapili church there was a structure of adobe and thatch.

"The present Catholic Cathedral was then in existence. But, as I said, the major portion of the dwellings of the city were the thatched ones of the native people.

NATIVES IN MAJORITY.

"The native population formed the great body of the population then seen upon the streets. They were always moving about and at work. They bore burdens upon the Hawaiian yoke, or mamake, which with its load at both ends, very much resembled the method of carrying which is followed by the Chinese at the present time.

"The men at work generally wore shirts but nothing more in the way of apparel.

TRANSPORTATION WAS PRIMITIVE.

"At that time there was scarcely a wheeled vehicle in the city. Those which were to be seen were ox carts, with occasionally a hand cart.

"Saddle horses were here in very small numbers. Thirteen years before when I left home there were no saddle horses, or practically none. When I returned I found that the few here were held very high, from \$75 to \$150 each. But the matter of horseback riding became such a craze that within ten years the prices of horses had fallen to from \$10 to \$50 each. In fact, in 1860 one could get a very fair riding horse for from \$10 to \$15.

SUGAR AND BEEF SCARCE—WAGES LOW.

"At the time of which I speak there were no large plantations or ranches. The cattle were just beginning to multiply upon Oahu, and beef was generally obtainable where ten years before it had been very scarce indeed.

"At the time of which I am telling you the wages of the workmen of the country were very low. The rate of pay for a native worker was about 25 cents a day on the average. There were no Chinese in the country except a few traders. There were, too, a few Lascars scattered about, but they were very few. They had come here as sailors, and had remained on the islands. There were also a few Cape Verde Portuguese, who had come here in whalers and liked the place.

"The native people at this time had declined to about 80,000, but were the most conspicuous element of the population.

"There were very few half-white people, as most of those who are so well known and remembered are of a later period.

ROADS IN 1853.

"The roads of the time were a great improvement upon those of the earlier days, but were still very inferior to what they should have been. The principal ones were a horse trail, which led to the Pali, and Dr. Judd had extended and reconstructed that down the other side until there was a good horse trail connecting the city with the various districts on the Koolau side of the island.

"There was a very passable road down Ewa and Waianae way.

"Once while making the trip down to Waialua, to which there was a good horse trail, I discovered that even at that early day the cattle had made great inroads into the forests of ti plants which had theretofore clad the foothills and upland pasturages, even to the highest tracts.

THE WAIKIKI ROAD.

"There was probably a horse trail to Waikiki, but there were only a few houses of the native dwellers there.

"The natives took to horseback riding with great facility and it is true that as the horses became cheap and everyone had his horse, the people gave up surf riding, as though their idea was to have rapid progress and they abandoned the older method for the newer one. The sport of surf riding was even disappearing when I returned, though some of the outlying islands had a great deal of it.

ANTI-MISSIONARIES.

"The foreign community was when I returned much as it had been when last I was here. There were the two elements—the missionary families and the white men who were engaged in business. There was still a great deal of feeling between the two elements, but it was abating, and finally almost entirely passed away.

"There were a few of the older missionary families living here, making their headquarters about the Kawaiahao church settlement, but once a year there was always a gathering here for the convocation in May, when the missionaries met in the old Kawaiahao school house, which stands still at the rear of the church.

REASON FOR DIFFERENCES.

"Perhaps the real reason for the differences which were then so startling were that the missionaries were engaged in endeavoring to reform the deeply degraded morals of the Hawaiians, while the members of the other portion of the community were by no means seeking such an end. This created the greatest friction and there were constant clashes between the two classes, but the presence in both of good women made it possible for time effectively to abate this friction.

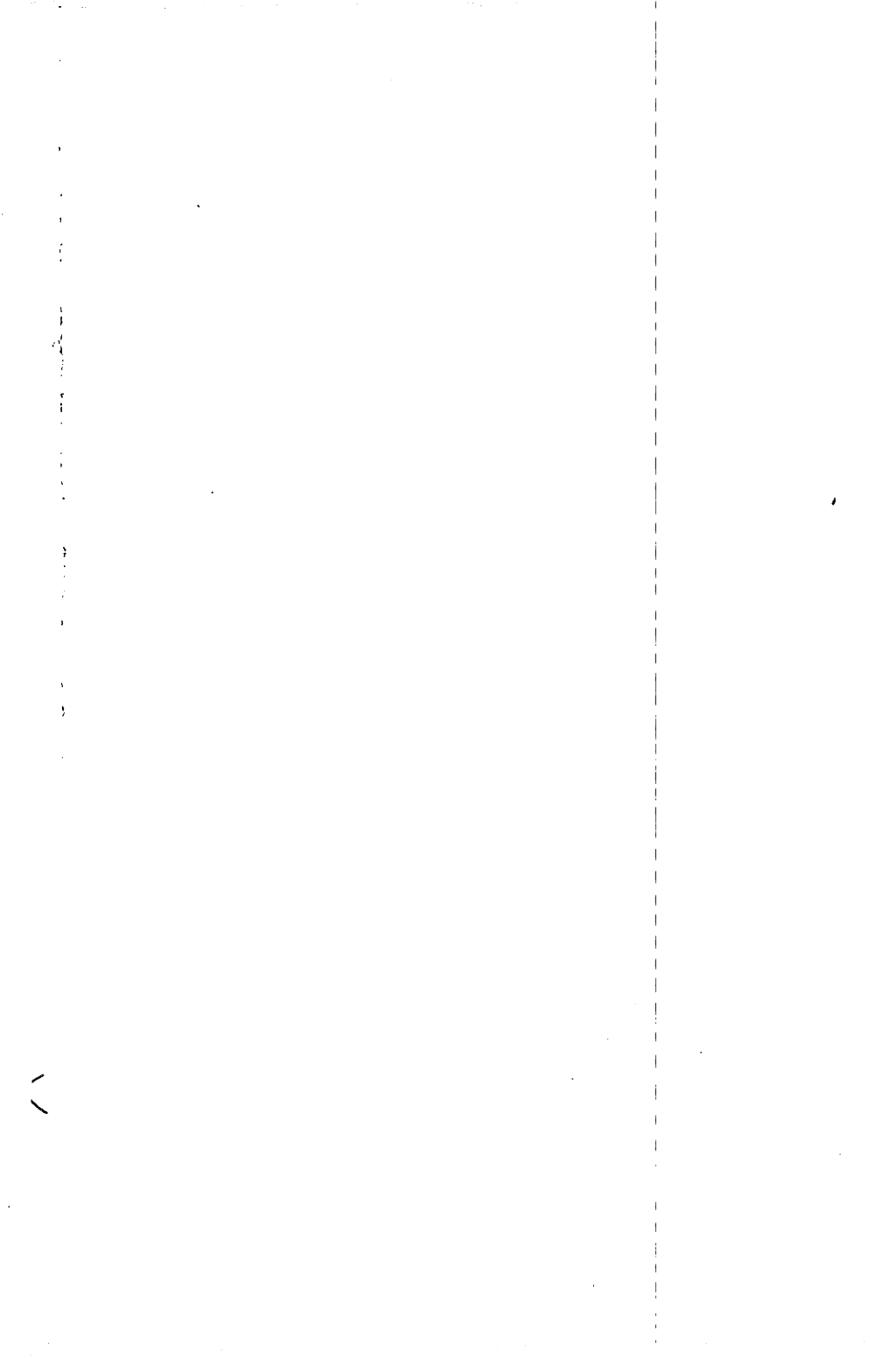
"When we returned we often saw the two young princes, afterward Kamehameha IV and Kamehameha V, on the street. They were dressed with care and carried themselves with great dignity. The old missionaries had by no means lost their influence, and were still as a body full of activity."



INDEX

	PAGE.		PAGE.
Adobe buildings, How made.....	42	Cooke, Rev. A. S., Data concerning.....	47, 48
After-glow sunsets, Discovery of, cause of	10	Dole, Rev. Daniel.....	58
Agricultural conditions in Hawaii, Early.	29	Education of Mission children.....	5, 20, 21, 30, 38, 40
Alexander, Rev. W. P., Data concerning	49	Education of natives, Difficulties of.....	40, 41
Anderson, Rev. Rufus, Description and character of.....	41	Emerson, Rev. John S., Data concerning.....	45
Andrews, Rev. Lorrin, Data concerning..	34	English, Difficulty of teaching natives....	40
Andrews, Dr., Data concerning.....	17	Ewa church, Building of.....	41
Animals in Hawaii. See "Cattle," "Horses," "Pigs."		Ewa Mission premises described.....	42, 44
Anti-missionary foreigners, Data concerning.....	27, 28, 29, 60	Ewa, Morals of, life in.....	43
Anti-slavery movement in Hawaii.....	52	Ewa, Removal of Bishop to.....	41
Bailey, Edward, Data concerning.....	41	Ewa, Weather at.....	31
Baldwin, Dwight, Data concerning.....	23	Fast days, Method of keeping.....	23
Bible, Translation of into Hawaiian.....	16	Fire, Native method of making.....	27
Bingham, Rev. Hiram, Data concerning.	51	Fishing, Native methods of.....	28
Bishop, Rev. Artemas, Data concerning.....	4, 30, 41, 43, 46, 51, 53,	Flour, Condition of mission supply of... 16	
Bishop, Mrs. Cornelia A. Sessions, Data concerning.....	54	Food supply, Source and character of in Hawaii.....	13, 14, 15, 16, 29, 44, 60
Bishop, Mrs. Delia Stone, Data concerning.....	6	Forbes, Cochran, Data concerning.....	23
Bishop, Mrs. Elizabeth Edwards, Data concerning.....	4	Fort, Honolulu, Passing of.....	58
Bishop Rings, Discoverer of, cause of...	10	Friend, Bishop editor of.....	9
Bishop, S. E., Trip to states, education and marriage of... 6,		Fruits and vegetables available.....	15, 16, 33, 39, 44
" Return to Hawaii, location at Lahaina.....	57	Goats, Milk and meat supply of.....	16, 43
" Removal to Hana.....	6	Goat stealing, Penalty for.....	42
" Removal to Lahaina.....	7	Government, Hawaiian, Effect of great revival on.....	55
" Removal to Honolulu.....	7	Green, Rev. J. S., Data concerning.....	53
" Exploration of West Maui by.....	7	Gulick, Mr., Data concerning.....	49
" Work as a surveyor and land dealer.....	7	Hanalei, Description of.....	50
" Theology of.....	7	Hawaiian. See "Natives," "Chiefs," "Government."	
" Interest of in social and scientific questions.... 9-10		Heathenism, Revival of by Kalakaua....	22
" Editor of "Friend".....	9	Heathenism, Survival of.....	12
" Attitude toward overthrow of Monarchy...	9	Heiau of Puukohala, Data concerning....	24
" Discoverer of cause of sunset after-glow and Bishop Rings.....	10	Hilo, Visit to.....	25
" Birthplace of.....	22	Honolulu, Life in, described.....	34, 35, 58
" Reminiscences of first published.....	3	Honolulu society in the thirties described	50
" Recollections of by L. A. Thurston.....	7	Horses, Use and price of.....	29, 60
Boarding Schools, Missionary.....	41	Idol worship, Survival of, at Kailua....	12
Bridges, None in Hawaii until 1840....	45	Inter-island transportation described. 22, 31,	32
Buildings; See "Mission' Buildings."		Jarvis, James Jackson, Data concerning.	50
Canoe, Travel by.....	18, 22, 28,	Johnson, Rev., Data concerning.....	49
Catholics, Persecution of.....	39	Judd, Dr., Introduced Royal Palm to Hawaii.....	6
Cattle, Source and supply of.....	16, 19,	Kaahumanu, Hawaiian Chief, described. 36,	47
Chamberlain, Mr., Data concerning.....	34	Kaawaloa, Visit to and description of. 22,	23
Charlton, Richard, Described.....	85	Kailua church, Destruction and reconstruction of.....	21
Chief, Character and arrest of a Hawaiian.....	47	Kailua, Description of.....	12, 31, 37, 44
Chiefs, Hawaiian, Description and data concerning, Customs of.....	51	Kailua, Missionary visits to.....	25
26, 29, 30, 32, 34, 43, 47, 48, 50, 51,		Kalakaua, Revival of heathenism by.....	22
Church, First stone in islands.....	33	Kalakaua, Hawaiian Chief, Data concerning.....	34
Church service in early days.....	36	Kanepaiki, Hawaiian Chief, Description of.....	43, 47
Clothing of missionaries.....	15	Kapiolani, Data concerning.....	22
Clothing, Native.....	14, 30, 44, 47, 53, 59,	Kauai, A trip to, described.....	41, 59
Coan, Rev. Titus, Data concerning.....	21, 54,	Kaumakapili church, Building of.....	41, 59
Common people. See "Natives."		Kaunualii, Data concerning.....	47
Conscience, None west of Cape Horn....	28	Kawaiahao church, Data concerning.....	36, 59
Cook, Capt., Native version of death of..	26	Kekuanaoa, Trip of, around Oahu.....	47, 51
		Kekupuho, Description of.....	25
		Keliiahonui described.....	47
		Keoua, Data concerning.....	24
		Kilauea, Visit to, in 1836.....	25
		Kinau, Trip of, around Oahu.....	47, 51
		Knapp, H. O., Data concerning.....	49
		Koloa plantation, Data concerning.....	49
		Kou trees, Cause of destruction of....	37
		Krakatoa, volcanic explosion.....	10
		Kuakini, Gov., Data concerning.....	12, 13, 21, 26, 30

	PAGE.		PAGE.
Ladd & Brinsmade engaged in sugar culture	49	Ogden, Miss, Data concerning	34, 41
Lafon, Rev. Thomas, Data concerning	52	Pearl Harbor, Description of	46
Lahaina, A Kona storm at	7	Pigs, Kinds and supply of	14, 16, 19
Lahaina church, First stone in islands	33	Population of Hawaii, Composition of, in 1853	60
Lahaina, Status of, in the fifties	6	Postage and postal methods	39
Lahaina, Trip to	7, 31, 32, 33	Poverty of natives	12, 14, 28
Lahainaluna school, Bishop principal of	27	Revival, The great, Description and effects of	53, 54, 55
Lamps, Native, described	55	Richards, Rev. Wm., Fired at, at Lahaina	6
Lyons, Rev. Lorenzo, Data concerning	24, 33	" " Data concerning	33
Mauna Loa, Eruption of	16	Roads, State of, in 1853	60
Medical care of people by missionaries	16	Royal Palm, Introduction of, to Hawaii	6
Milk, Supply of	16, 43	Royal school, Character of	42
Mission buildings, Style of	12, 17, 18, 21, 23, 24, 33, 34, 41, 42, 50, 58	Ruggles, Rev., Data concerning	22, 23
Mission children, not permitted to learn Hawaiian	5	Schools. See "Education of natives"	40
Mission, General meetings of	31	Schools, Training, Data concerning	41
Mission servants. "See "Wages."	56	Shipping, Method of towing in Honolulu	59
Missionaries, An error of	41	Silk culture on Kauai	45
" Attack on, by ship masters	6	Singing, Inharmonious in early days	36
" Duties and method of life of	5, 9, 16, 17, 21, 50	Smallpox, Epidemic of	46
" Food supply of. See "Food Supply."	51	Smith, Lowell, Data concerning	21, 41, 46
" Opponents of, types	27, 28, 29	Sugar culture on Kauai	49
" Pay of	44	Surf-riding and canoes	18, 60
" Pioneer band, date of arrival	4	Tapa and mat making	38
" Reinforcements of	4, 36	Tapule, Deborah, Hawaiian Chief	50
" Visit of Oregon party of	51	Thurston, Asa, Data concerning	16, 18, 19, 21, 28, 32
" Visits of, to Kailua	25	Thurston children, Data concerning	19, 21
Missionary children, Education and conditions of life of, in Hawaii	5, 19, 20, 21, 38, 40	Thurston, Mrs. Lucy G., Data concerning	51
" clothing described	30	Tinker, Rev. Reuben, Data concerning	41
" lady, Daily life of	30	Titcomb, Mr., engaged in silk culture	41
" lands, Area of	15	Tomatoes, Introduction of	35
" life at Ewa described	42	Tools, Stone and steel	27, 29
" servants, Number, pay and status of	15	Transportation in Honolulu in 1853	60
Monarchy, Attitude of Bishop toward overthrow of	9	Transportation, Inter-island, described	31, 32
Money, Character of, in early days	29, 44	Trees and flowers in Hawaii described	37
Moral conditions in Ewa and Waianae	43	" Destruction of Kou	37
Music, inharmonious in early days	30	" Scarcity of, in Honolulu	58
Naihe, Hawaiian Chief, Description of	26	Vancouver, Cattle introduced by	16
Native clothing. See "Clothing Native."		" Data concerning	24
Natives, common, Status of, relations with chiefs	13, 29, 44, 47, 60	Volcano. See "Kilauea."	
Native horses, character of	12	Wages of servants and laborers	15, 44, 49, 58, 60
Native industries	14	Waialua, Trips to, Description of	45
Natives, Poverty of common	12, 14, 29	Waianae, Morals of, Life in	43
		Waikiki road in 1853	60
		Waimea, Visit to and description of	23, 24
		Water, drinking, Source of, at Kailua	14
		Weather at Kailua and Ewa contrasted	31
		Whale ships at Honolulu	59
		Young, John, Data concerning	23, 24



THE UNIVERSITY OF MICHIGAN

DATE DUE

~~SEP 15 1988~~

JAN 03 1991

APR 18 1991

APR 04 1991

MAY 2 1991

APR 2 2001

~~JUN 3 1991~~

MAY 24 1993

APR 02 2001

APR 1 2001

UNIVERSITY OF MICHIGAN



3 9015 00586 5608

